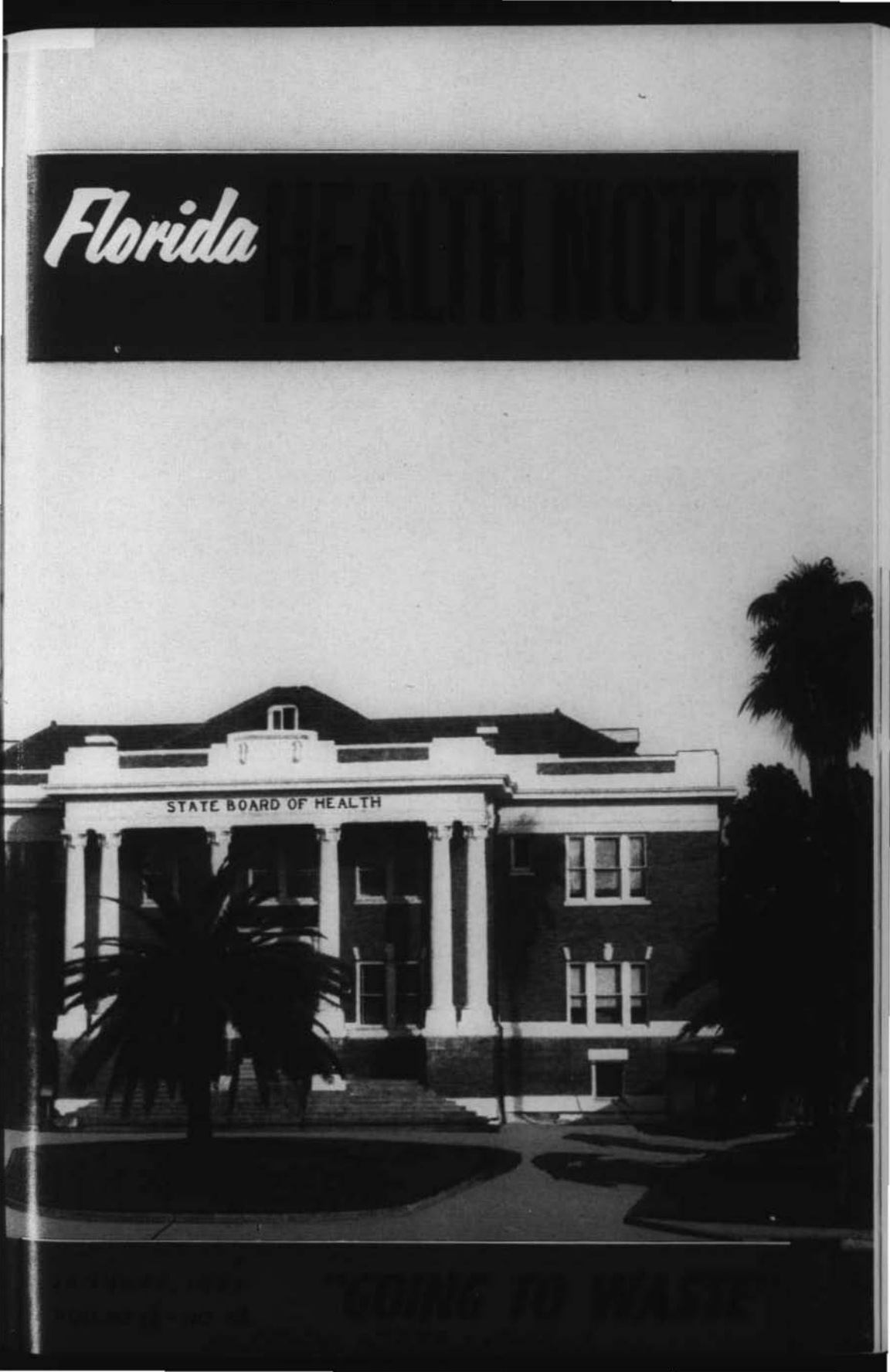
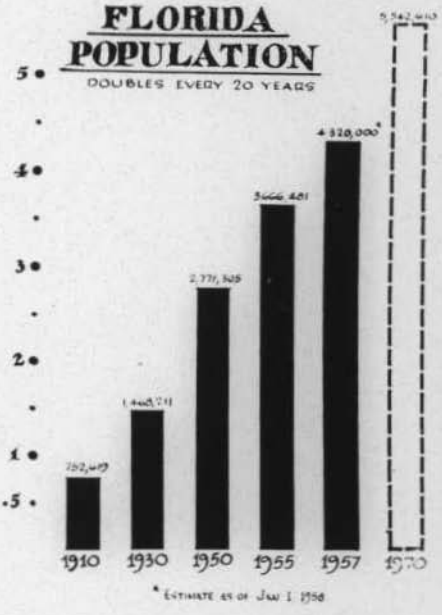
Florida HEALTH NOTES



This sewage plant operator is testing some liquid waste to make sure it is safe to return to the earth.

"Going to Waste"

THE PAST FEW YEARS have seen an extremely rapid growth in Florida's population. In fact, it might almost be called explosive since it has risen from about 2,770,000 in 1950 to over 4,400,000 at the end of 1958. There have been several predictions that the growth may be expected to continue at this accelerated pace. The population growth is shown in the graph below:



Prior to World War II, many sections of the state were less developed than is true today. Quite often disposal of sewage from these homes was accomplished by the use of individual systems. In some instances privies were used. Here is what a typical privy looked like. (For those who don't remember!)

In other cases, septic tanks were used. In rural and thinly populated urban areas septic tanks did not cause too much trouble under favorable conditions. Septic tanks are intended to give some small degree of treatment with subsequent disposal by means of tile drain fields designed to allow the liquid to seep into the ground. Such systems failed to function satisfactorily when there was prolonged rainfall and the water table rose. Often this resulted in failure of the drainfield to absorb the liquids from the septic tanks, and practically raw sewage, with all its germs and odors, was found in waters that seeped up to the surface of the ground.

The population build-up of urban areas increased the possibility of spreading of diseases such as typhoid, dysentary and cholera by inadequate disposal methods. Diseases such as these could result in the illness of many persons.

Failure of individual home sewage disposal systems, such as sewage from the septic tanks flowing out onto the ground and in open ditches, helped to support the claims of the State Board of Health that adequate sewage disposal systems were necessary for healthful community growth.

During the past several years the developers of large subdivisions have begun constructing their own sewage systems. These vary in size from small units capable of treating the wastes from a few homes to systems serving several thousand homes.

A Present Help

In 1955, Congress passed a law which was intended to assist cities in construction of needed *sewage treatment plants.* The law makes money available, in the form of a gift, in an amount up to either one-third of the project cost or $250,000, whichever is the smaller. This money is given to the city after it has been determined by the State Board of Health that the need for a sewage treatment plant, from a public health standpoint. is greater than that of some other cities. Before the money is offered and given by the Federal Government a considerable amount of paper work is required in processing the application. The amount of money which has been allotted and granted in Florida is around $900,000 per year. Thus far four cities, Eau Gallie, Fort Lauderdale, Long Key and

FLORIDA HEALTH NOTES

Published monthly except July and August on the 5th of the month by the Florida State Board of Health. Publication office, Jacksonville, Fla., headquarters of the State Board of Health. Entered as second class matter, Oct. 27, 1921, at post office, Jacksonville, Fla., Act of Aug. 24, 1912. It is intended primarily for individuals and institutions with an interest in the state health program, public and private. Permission is given to quote any story. Clipping of quotations or excerpts would be appreciated.

Naples, have completed treatment plants under this program. Several others are in various stages of construction.

In some areas of the state the Boards of County Commissioners, as permitted by a state wide law, have created what are called "sanitary sewer districts". This permits unincorporated areas of a county to provide a sanitary sewerage system. With the installation of such a system, homes and industries can now be built. Before the law was enacted, many unincorporated areas were not able to attract industry or home building due to the high water table and poor soil characteristics which prevented proper functioning of individual home systems.

Construction of community sewage systems is illustrated by the following table:

were provided by the builders because the cities were unable, financially, to provide this service. It also shows that the *percentage* of Florida's population, served by such systems, has increased only slightly, although the actual *number* of persons served has increased *more than 100 per cent.* The figures also indicate that there are still more than 2,000,000 persons *not served* by community sewerage systems.

Industry and Problems

Florida has also experienced a considerable expansion of its industrial activities. These new industries have provided employment for a large number of people and have aided the economy of a number of sections in Florida through their increased payrolls. However, this industrial expansion has not proved to be en-

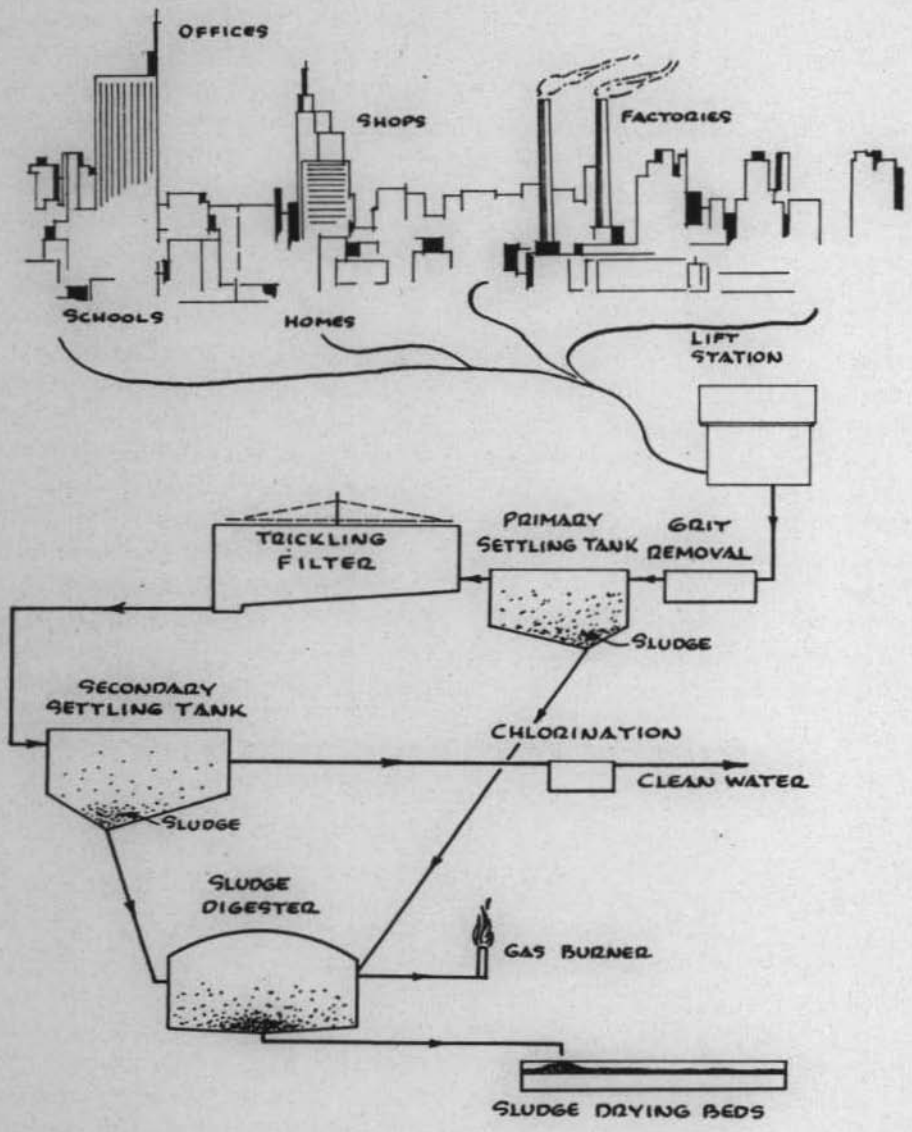
SEWERAGE SYSTEM PROGRESS IN FLORIDA

1945 versus 1958

	1945	January 1, 1958
Population of Florida	2,250,000	4,320,000
Population served by sewerage systems	991,000	2,020,948
Percent of total Florida population served	40.5%	46.7%
Total number of sewerage systems	139	337

The table shows clearly that the total number of public sewerage systems in the state, serving both cities and subdivisions, has more than doubled during the last twelve years. In many cases the subdivision sewerage systems

tirely a blessing since certain problems have been created. One of the problems has been the safe and sanitary disposal of liquid wastes produced by the plant's operation. In most cases, these wastes have not been too difficult


OFFICES
SHOPS
FACTORIES
SCHOOLS
HOMES
LIFT STATION
TRICKLING FILTER
PRIMARY SETTLING TANK
GRIT REMOVAL
SLUDGE
SECONDARY SETTLING TANK
CHLORINATION
CLEAN WATER
SLUDGE
SLUDGE DIGESTER
GAS BURNER
SLUDGE DRYING BEDS

to dispose of, while in others the industrial wastes are rather complex and are difficult to treat. In some instances the amount of industrial waste has been small in comparison to the waste created by normal domestic activities and, as a result, the industrial waste is "lost" in the domestic sewage and may be treated by normal sewage treatment facilities.

Florida's industrial plants realize that they have problems, and they have voluntarily spent many thousands of dollars to see that their wastes (and odors) are not offensive to the community, do not affect the forests, fish and wildlife, nor in any way contaminate the drinking water of the community. Many plants, at their own considerable expense, have installed pre - treatment plants so they will not discharge undesirable product wastes into a city system in such manner that it hampers the normal treatment of domestic wastes.

There has been considerable discussion over a period of time with respect to the advantages and disadvantages of separate treatment plants as compared to the treatment of both domestic and industrial wastes in the same sewage treatment plant. Some have felt that it was better to treat industrial wastes separately. Others have felt that all types of industrial waste waters that may be produced should be transported to a combined treatment facility. In some instances industrial plants have been located where they have access to a city sewerage system and have made arrangements to dispose of their waste to the city sewers. This has been the result of negotiation between the city and the industry involved.

Poisonous and Burnable

Combined treatment of both industrial and domestic waste waters can be a difficult problem. This is especially true where materials are toxic (poisonous) or flammable (burnable). If materials are toxic they may kill the organic growths and bacteria in the sewage treatment plant units. These bacteria are important to the function of the plant since they live on the matter found in sewage and destroy it as a part of the treatment process. Therefore, poisonous materials may render the plant completely inoperative with the resultant production of odors and other nuisances to the surrounding population.

Normally, flammable materials such as gasoline, oil and other similiar dangerous liquids are not accepted by any city sewerage system. These materials might collect in areas of the sewers in pools and be ignited by a spark and produce a disastrous explosion. Such an explosion can pos-

▶ Raw sewage enters settling tanks at left where the solids settle to the bottom and are pumped to the digesters, seen here in the upper left background. The liquids flow off through the opening seen at left, center, to the square distribution box seen between the circular trickling filters at right, center. From the distribution box the liquids flow to the rotating arms atop the trickling filters and from them flow out over the slag, or stones, where the bacteria kill off many of the harmful materials.

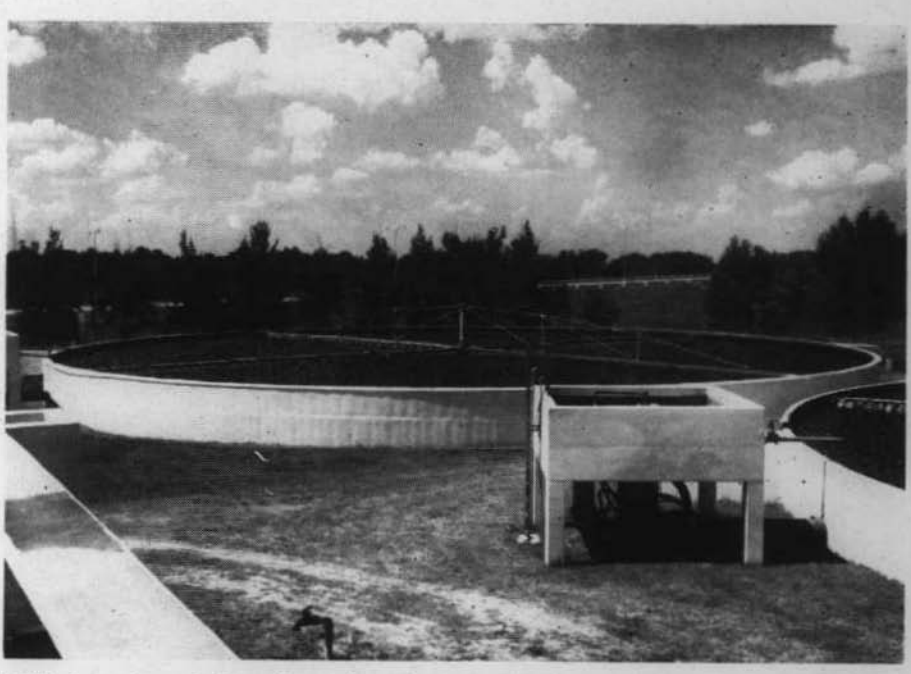
sibly destroy a portion of the sewerage system and nearby property as well as endangering the lives of people who may be in the vicinity. There are several instances on record where people have lost their lives or have been severely injured from explosions of such a nature.

Certain industrial wastes may contain a large amount of undissolved solids such as fibrous material, vegetable, or animal matter, etc., which may place an extra load on the treatment plants. It is a usual practice to require pre-treatment of the waste, which may be as simple as screening, to make it about the same consistency as normal domestic sewage before it is placed in any of the city sewers. This is often of mutual benefit to both industry and city since the cost of such disposal methods may be less than if the industry completely treats its own waste in a separate treatment plant. Normally, a charge is made by the city for waste waters other than domestic sewage and may be based on both volume and strength of the waste.

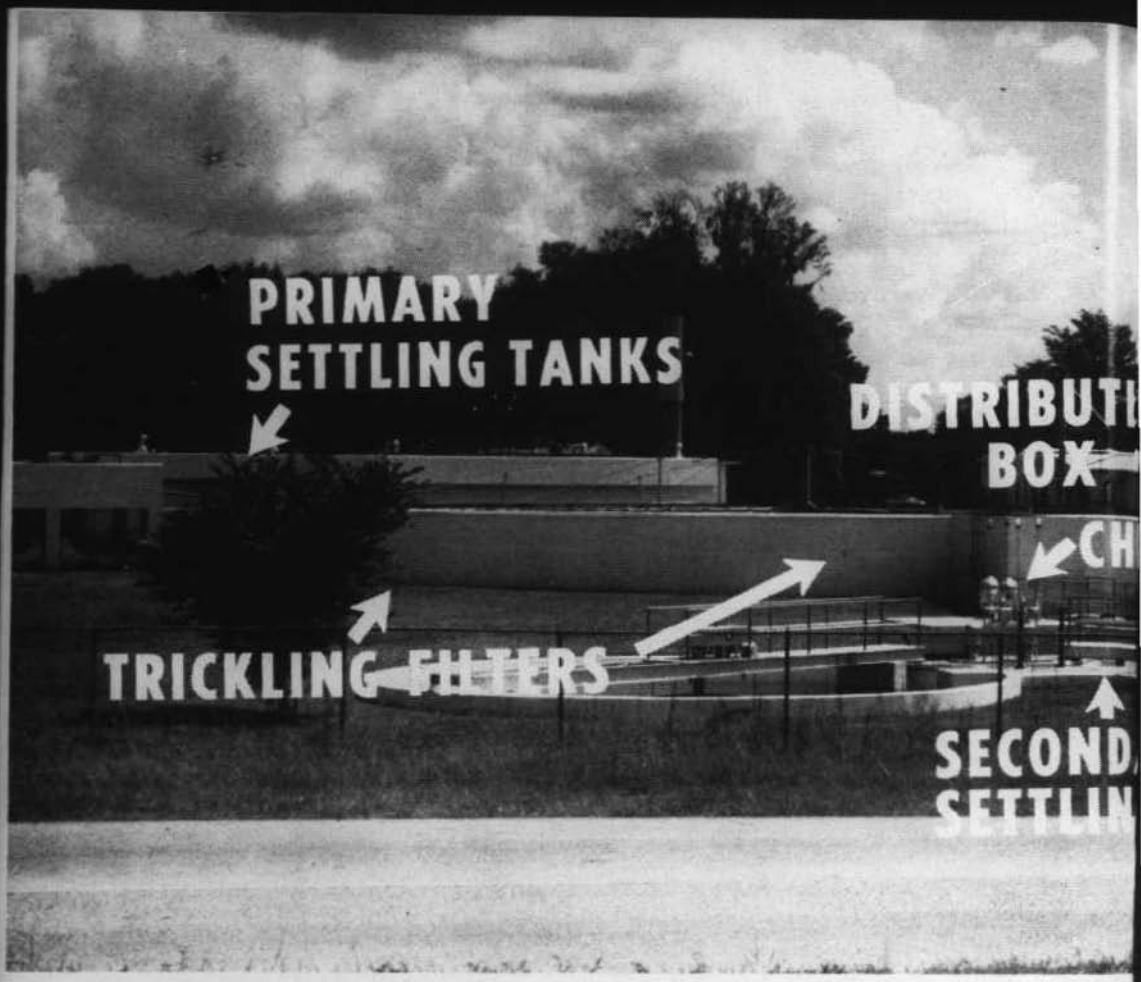
An Example

The City of Ocala, in Marion County, is one that has adopted a plan of treating both domestic and industrial waste waters. During the past several years, as Ocala grew in size, the disposal of domestic sewage became more and more of a problem. Ocala was not favored by Mother Nature with a natural waterway which could be of assistance in disposing of these wastes. As a result, some treatment was accomplished and the wastes were disposed of to natural caves and holes in the underground rock formations by means of natural sinkholes and drainage wells.

As the population grew, this method, which from a public health viewpoint was never justified, became more and more unsatisfactory and posed an increasingly greater threat to contamination of public as well as individual water supply wells in the vicinity. The city realized what steps were required and began to work toward securing a satisfactory sewage treatment plant. After some time, it was successful in obtaining a modern sewage treatment facility. Following con-



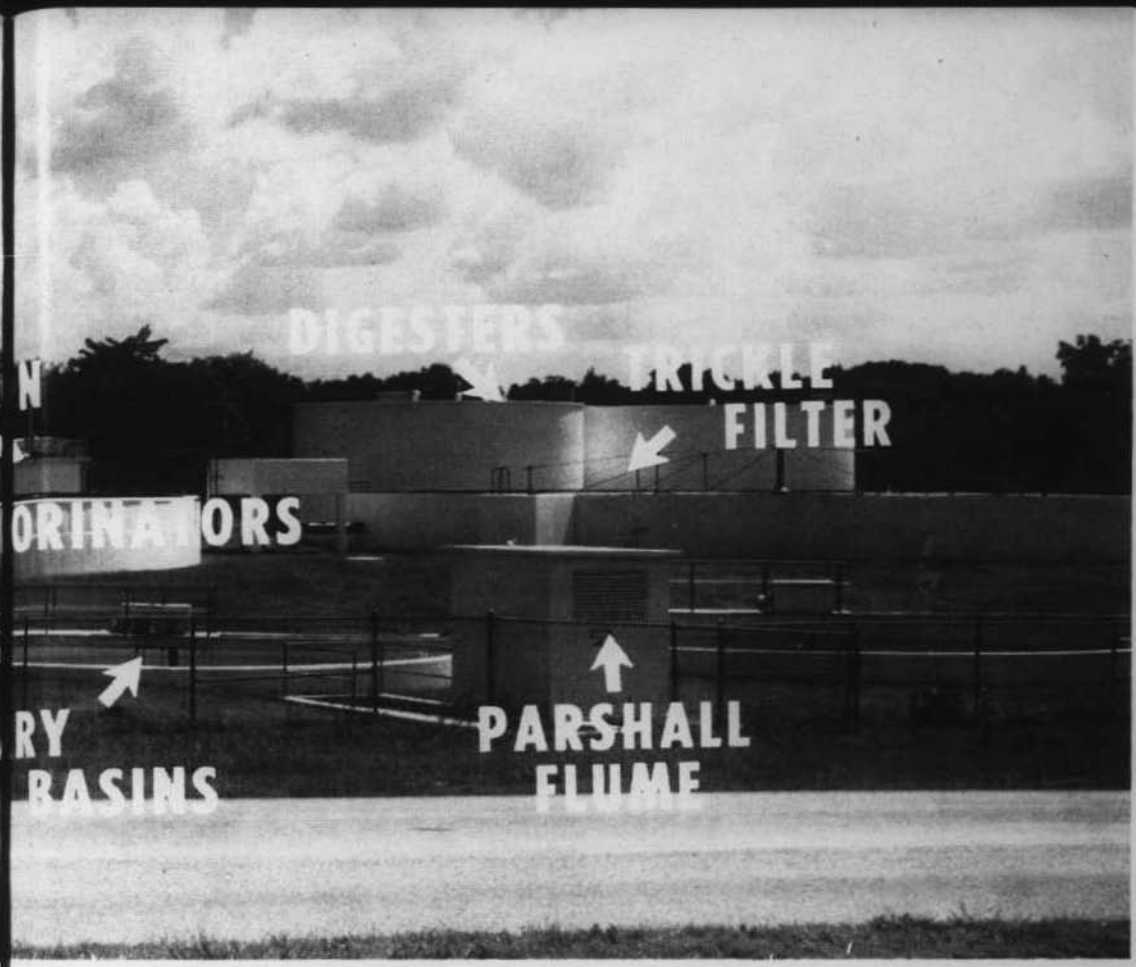
This is a closer look at the trickling filter, showing the distribution box and the liquid wastes spraying from the openings in the rotating arms. The rocks in the filter are covered with bacteria, which gives them the dark appearance seen here.



MUNICIPAL SEWA

CITY OF OC

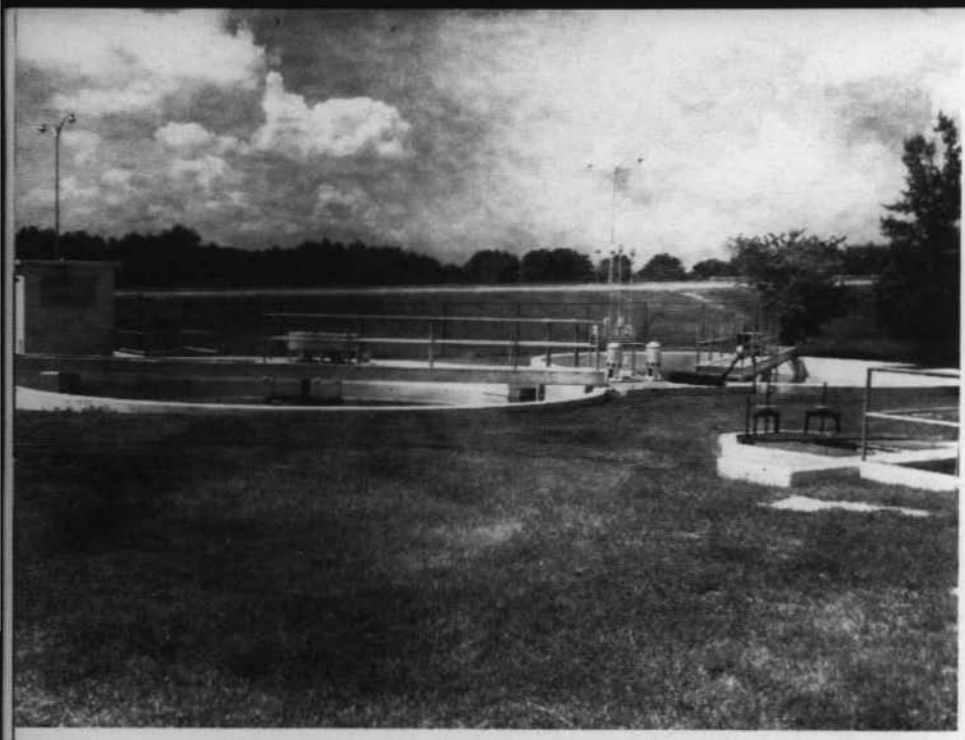
This view of the Ocala Municipal Sewage Disposal
sible for the plant to do its share in both protecting t
the problem of waste disposal. After treatment in t
purified and free from disease.



E DISPOSAL PLANT

LA, FLORIDA

lant shows the various components which make it pos-
e health of the citizens and in helping industry solve
e plant the sewage is returned to the earth, and the air,



When the liquid wastes leave the trickling filters they pass through the unit seen here at the extreme lower right, where chlorine is introduced to complete the action of killing off harmful materials in the wastes. The wastes then go to the two circular secondary settling tanks where the remaining solids settle out and are pumped back to the primary settling tanks for further treatment.

struction of this plant, the treated sewage was allowed to either evaporate to the air or seep in the ground without harming any underground water supplies or the natural resources of the area.

Over the years Ocala began to acquire certain types of industries. Among the industrial establishments which are found in Ocala are a meat packing plant and a citrus processing plant. After some discussion and technical negotiations, the city agreed to accept the waste from the meat packing company for treatment with the city's own domestic waste. After the lapse of some further time, arrangements were made whereby the city sewage treatment plant was used to receive the waste from the citrus processing plant. In addition, other firms, such as bakeries and laundries, are now served by the municipal system. As a result, the dangers of possible contamination of the underground waters with resultant damage to the public health have been reduced through treatment of all industrial wastes in a properly designed sewerage system.

Today, sewage and industrial wastes are collected by 83 miles of sewers and brought into

Ocala's sewage treatment plant, a view of which is shown on pages 242 and 243 in the center of this issue. The plant is designed for an average daily flow of 2,340,000 gallons, of which it is expected that 135,000 gallons per day will be contributed by the two major industrial plants.

The Process

The sewage first goes to a chamber to remove the grit or sand, thus preventing damage to equipment, such as pumps. If not removed, the grit takes up valuable space in the treatment units. The sewage is then aerated to make it easier to treat. From here it goes to four primary settling tanks which remove some of the larger solids. The matter that settles out is pumped to the digester and the liquid overflow passes to a unit known as a "trickling filter". The Ocala plant has four of these units side by side and each unit handles one-fourth of the flow.

Each filter is 120 feet in diameter and is filled with slag, or rock, to a depth of about six feet. The photo on page 241 shows one of the filters. A rotating-arm mechanism distributes the liquid sewage over the surface of the filter. The slag in the trickling filter is properly sized and arranged to permit the sewage to trickle downward over the surfaces of the pieces of slag. The nutrient materials in the sewage act as food for the micro-organisms that live and grow, attached to the various surfaces of the slag. These tiny organisms spend their lives feeding on the various forms of matter in the sewage and after reproducing, die off, leaving their offspring to carry on the purification job. After dying, masses of dead micro-organisms "slough off" or become detached from the slag. They are washed out of the filter by the sewage which flows to one of the four secondary settling basins. A portion of the flow is recirculated from the filter back to the primary settling basins and passes through the filter again to provide better treatment.

▶ When the liquid wastes leave the secondary settling tanks they pass through this Parshall Flume which is scientifically designed to record the flow in gallons so an accurate check can be made at all times.

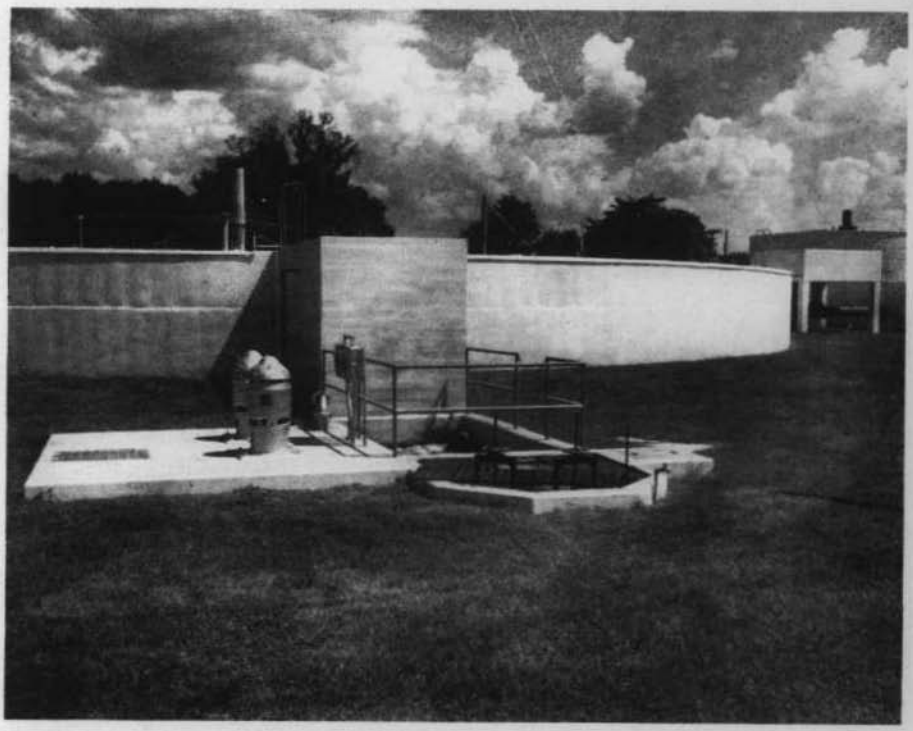
The secondary basins remove the large particles of solid matter, such as the dead micro-organisms. From the secondary basins the treated liquids pass through a flow measuring unit, known as a Parshall Flume, shown on page 245. After being treated with chlorine to reduce the number of bacteria present, it goes to a series of lagoons, covering about 80 acres in area, from which it either evaporates or disappears harmlessly into the ground.

Here we see the control house and a portion of two of the digesters. The solids are pumped here where bacterial action destroys most of the harmful materials. After remaining in the digesters for a specified length of time the solids are pumped out and put on drying beds where sunshine and air complete the operation and the solids are then rendered harmless and will not endanger health.

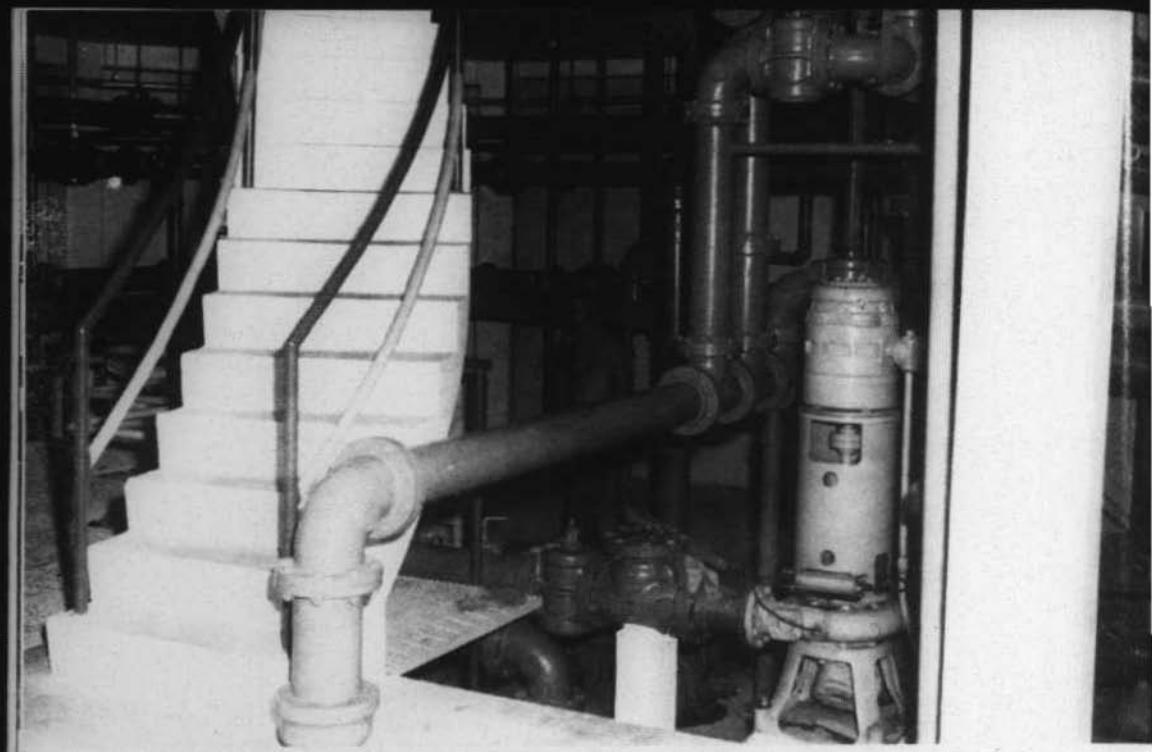
Now let's retrace our steps slightly. The sludge, or solids, from the secondary basins are pumped back to the primary settling tanks. The solids from the primary tanks are pumped to one of three units known as digesters. The wall of one digester and the control house are shown on page 246. In the digesters the solid matter in the sludge is broken down to humus, water and two gases: carbon dioxide and methane. After the bacteria have finished their work, the resultant solids contain very little material which is offensive and are either spread on the plant grounds to grow grass or dried in the sun on drying beds. After drying on the beds, it may be bagged and sold for use as a soil conditioner. The picture on page 248 shows some of the piping in the control house used to convey the various flows to the right place.

The picture on page 234 shows an analysis being run by the plant superintendent whose job is to keep the plant operating properly. Various daily and weekly tests are necessary to determine the effectiveness of the treatment devices and to guide the operator in controlling the sewerage system. This is a necessary part of plant operation. In turn, plant operation may be considered as a means of protecting the investment in the plant to ensure that it serves the community to the fullest capacity.

Ocala's plant today is a far cry from the original installation which handled the sewage from a few people. The present plant makes it possible to treat the domestic sewage as well as the industrial wastes from businesses which support the economy of the community. This means that the city water supply is protected, nuisances prevented and the spread of disease curtailed. Such plants are a necessity if Florida's communities are to continue to grow and prosper while properly protecting the health of the public.



▶ **The extra margin of safety in the purification process is obtained in the section of the plant shown here. It is here the liquid sewage is treated further by adding chlorine. The chlorinators assure you that nothing is left to chance in the purification process and that the wastes are returned to the earth in a safe and sanitary condition.**



▶ The inside of the control house looks like this. The maze of pipes, valves and pumps are used to direct the liquid and solid wastes to the proper places for complete and efficient treatment before going to the drying beds.

Bad Effects of Pollution . . .

In those cases where cities dump untreated sewage, or industrial wastes, into a river or lake several bad effects may be produced.

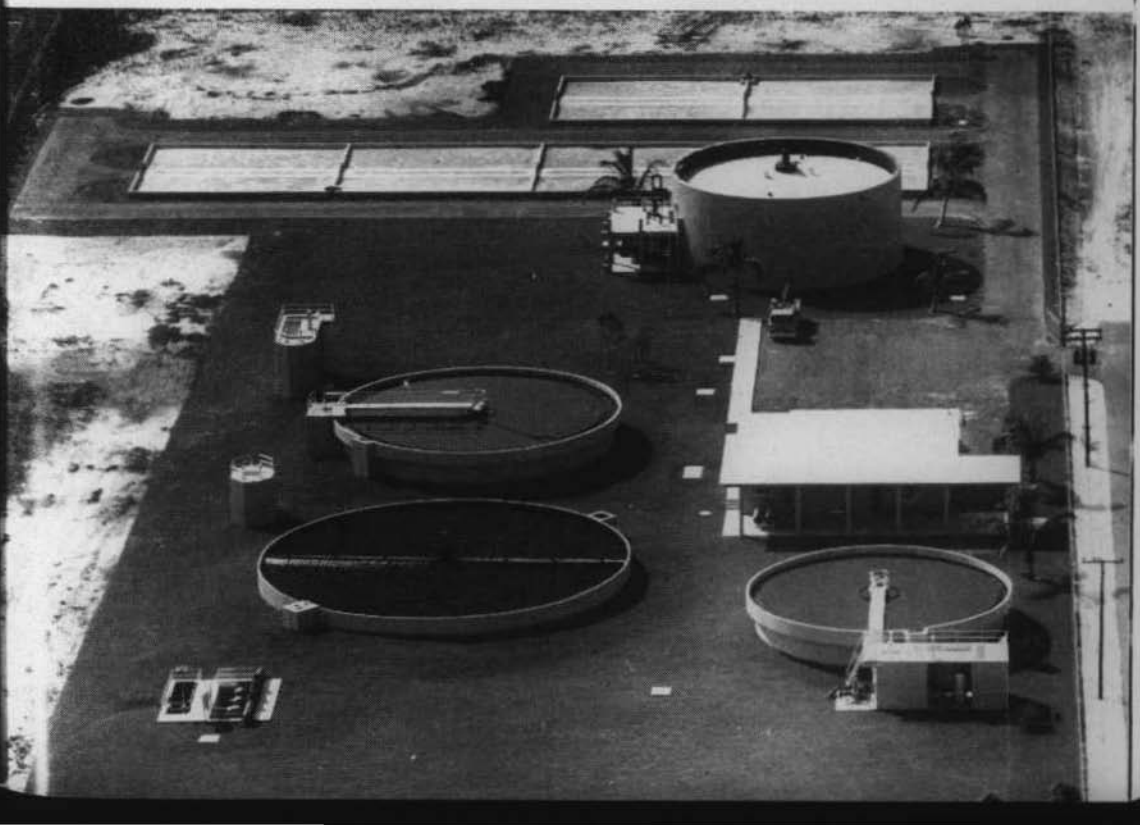
Any body of water contains a certain amount of oxygen which is dissolved in the water. Such oxygen is as necessary to marine life, such as fishes, as the oxygen in the air is to human beings. Without enough oxygen the fishes cannot continue to live. (Sewage contains certain materials known as *organics* which must be suplied with enough oxygen before they become harmless. If this oxygen is taken from that dissolved in the water, a condition known as depletion, or "sag," occurs. This reduces the activity of the marine life and if the "sag" is great enough the fishes die.)

Another bad effect is that caused by the accumulation of solids. These can ocur in sufficient quantities to produce "sludge banks" and partially block a part of a river or lake.

Another effect caused by sewage pollution of waters is that of odors. These odors are caused by the presence of foul-smelling gases such as hydrogen sulfide. This is the same gas which causes the bad odor of rotten eggs. These gases are produced by the decomposition of sludge solids in water where the oxygen has all been used up.

Proper treatment of sewage is necessary to prevent pollution of rivers, lakes and other bodies of water.

▶ This is an aerial view of the waste treatment plant built at Fort Lauderdale with Federal assistance. Attractively designed and nicely landscaped a plant of this type is an asset to the community.



What of the Future?

One of Florida's great natural resources is the system of incomparable waterways and the thousands of lakes that dot our landscape. In many of these the fishing is unparalleled and others are prime attractions to tourists for their lovely landscapes and water activities. Swimming, powerboating and waterskiing have gained prominence and are among our major outdoor sports.

Some statisticians are projecting our future population based on their estimates of the rapid growth Florida is making. The population for 1970 has been set at approximately 8,000,000 people. Besides more people this also means more fishermen, swimmers, boating enthusiasts and water skiiers. More people are going to be living on water front property.

If the citizens and leaders of Florida communities fail to envision this growth and expansion the sewage treatment facilities will be found inadequate. This could result in pollution of the waterways and lakes to a highly unsatisfactory degree. However, the fact that many communities and industries are now planning their facilities with the future in mind is a healthy sign that others will follow suit and do likewise.

Let's not let our streams, rivers and lakes become offensive rather than attractive.

It's Up to You . . .

If YOU *are interested in making your community sewage system more healthful and economical there is plenty of help available to you. First, contact your County Health Officer. He will discuss your situation and give you help. You may also secure information from the Bureau of Sanitary Engineering, Florida State Board of Health, P. O. Box 210, Jacksonville, Florida.*

FLORIDA STATE BOARD OF HEALTH

1217 Pearl Street or P. O. Box 210
JACKSONVILLE, FLORIDA

FLORIDA HEALTH NOTES published by Florida State Board of Health since 1892

Florida HEALTH NOTES

VOLUME 51 • NO. 2
FEBRUARY 1959

Better Mental Health

OF FLORIDA'S 4,450,000 CITIZENS

APPROXIMATELY

44,500 (1%) NEED TO BE IN A MENTAL HOSPITAL

223,000 (5%) NEED THE SERVICES OF A PSYCHIATRIST, A MENTAL HEALTH OR CHILD GUIDANCE CLINIC

312,000 (7%) NEED HELP FROM THEIR FAMILY PHYSICIANS, PUBLIC HEALTH NURSES, SOCIAL WORKERS, ETC.

3,870,500 (87%) NEED TO KNOW MORE ABOUT MENTAL HEALTH SO THAT THEY CAN LEAD HAPPIER LIVES

Better Mental Health

This issue of FLORIDA HEALTH NOTES is about *mental health*—good mental health and how to preserve it; poor mental health and how to prevent it.

You say that you have no need to be interested in mental health? We beg to differ. IF:

- There is a boy in your son's classroom who fights all the time
- An elderly neighbor absent-mindedly set her bed on fire
- A man in your office recently committed suicide
- You have been in an automobile accident which was caused by a drunken driver
- Vandals have wrecked a nearby school
- A woman is confined in the county jail for three weeks, awaiting admission to a state mental hospital
- Pornographic literature is being peddled in your community, particularly around high schools—you *are* interested in mental health.

All of the above—and many more—are various aspects of the problem of poor mental health. These situations are found in every city and town in Florida, in varying degree. They affect every citizen regardless of class, creed, color or financial status. So. . . .you see you *do* have an interest in learning more about good mental health and how to preserve it; poor mental health and how to prevent it.

Where do you begin? Why, right at home, in your own community. Do you know what's going on in your city? Your county? This issue of FLORIDA HEALTH NOTES will give you some information about your state, but you must seek information about the situation in your own community. The following questions will help you get started. They are not intended to be the basis of a survey. The answers will merely help to open your eyes to mental health problems all around you.

FLORIDA HEALTH NOTES

Published monthly except July and August on the 5th of the month by the Florida State Board of Health. Publication office, Jacksonville, Fla., headquarters of the State Board of Health. Entered as second class matter, Oct. 27, 1921, at post office, Jacksonville, Fla., Act of Aug. 24, 1912. It is intended primarily for individuals and institutions with an interest in the state health program, public and private. Permission is given to quote any story. Clipping of quotations or excerpts would be appreciated.

(The last issue was shown as Volume 50, No. 11, pp 234 through 250 — This should have been Volume 51, No. 1, pp 1 through 20.)

DO YOU KNOW . . .

- If your community has a clinic for alcoholics?

  If there is any education going on in your high schools about alcohol?

- If there is a guidance program in your county school system?

  If there are any mental health in-service training programs for teachers so they can better deal with the emotional and behavior problems of their children?

  How many retarded children from your county are on the waiting list to get into Sunland Training Center?

  If your school sytem has special educational facilities for retarded children?

- How many people from your county are in one of Florida's state mental hospitals: Chattahoochee, Arcadia or South Broward?

  If you have any facilities in your local hospital where mentally ill persons can be cared for?

  If not, where do you keep people while they're waiting to be admitted to a state hospital—in jail?

  If there is any local group which helps public health nurses assist persons discharged from state hospitals to get continuing out-patient care, find a job?

  Where they put children who are mentally ill (psychotic)?

- If the detention quarters for delinquent and dependent children in your city are adequate and well-staffed?

- If your County Health Department has a mental health work- on its staff?

  If you have a mental health or child guidance clinic in your area? If not, how far distant is the nearest one?

- What special services—employment, housing, social — your community provides for older people?

- If your high schools offer any family life education and preparation for marriage courses?

  If there are any child study or parents' discussion groups?

  If there is a local Mental Health Association?

  If your local Ministerial Council has any study courses on counselling for its members?

- If there are any marriage counselling services offered—by any group?

- How many persons in your community are preparing for professions that deal with mental health: psychiatrists, psychologists, nurses, social workers?

- If the members of your police force have had any training in how to recognize and deal with abnormal people?

  If there has been an increase in crime rates in the past 5 years?

ALCOHOLISM

According to studies made by the Florida Alcoholic Rehabilitation Program, the number of alcoholics in Florida at the beginning of 1958 totaled 109,000 (not to be confused with week-end or heavy drinkers). The percentage of alcoholics in Florida's population is close to the median figure for all the 48 states.

In 1940 one in ten alcoholics in Florida was a woman. By 1957 the ratio had risen to one in four.

It has been said that alcoholism is one of the greatest problems facing American society today—that it affects directly or indirectly more persons, does more harm to our society and entails much greater costs than any of the other ills receiving concentrated attention from private groups and foundations or from local, state, and federal governmental units.

The 1957 Annual Report of the Police Department of one of Florida's larger cities reveals a total of 11,121 arrests for drunkenness, and 2,301 for driving while intoxicated. The chief of police says that his department does not have sufficient personnel to prepare and study case histories of those arrested, but that intemperate use of intoxicants is a major problem, with other serious offenses the indirect result of overindulgence in alcohol.

The Florida Department of Welfare reports that the staff encounters alcoholism principally in relation to (1) *aid to the disabled,* "where alcoholism or apparent alcoholism appears relatively often as one part of the whole constellation of social and health problems," (2) *aid to dependent children,* "we have no data, but we do see alcoholism as contributing continuously to the economic dependency of children" and (3) *child welfare services,* "child welfare workers report alcoholism again and again as the principal, immediate reason for a home to be unacceptable for or to a child."

Official recognition was given to the problem in Florida by the 1953 Legislature which enacted a law establishing the Alcoholic Rehabilitation Program. Its functions include general educational activities and treatment designed to rehabilitate the alcoholic. The latter is carried out through four outpatient clinics located at Miami, Tampa, Jacksonville and Pensacola, and a fifty bed hospital at Avon Park. The Center offers accomodations for thirty-eight male and twelve female patients who must seek admittance on a voluntary basis. In all five of its facilities together, however, the Program can handle only some fifteen hundred persons a year.

There are many private organizations and institutions engaged either directly or indirectly in alcoholic rehabilitation. Probably the best known and most effective group is Alcoholics Anonymous. However, one long-time member put the number of persons in Florida who actively participate in this organization at approximately 3,000.

What is the answer? By reliable estimates there are 109,000 alcoholics in the state's resident population. Under its present structure, the Alcoholic Rehabilitation Program can work with approximately 1500 of these a year. The membership of Alcoholics Anonymous is around 3,000. That leaves at least 104,000 persons who need help.

To effectively deal with this tremendous problem from the standpoint of rehabilitation, *the people of Florida must become aware of the extent of excessive drinking and the nature of this illness as a public health problem*. Such is the first and vital step in the direction of any long-range plan of control and prevention.

JUVENILE DELINQUENCY

All over the country juvenile delinquency is on the increase. Its consequences in teen-age unhappiness, distress in families and serious disturbance of community life are well known. In Florida, in 1957, Juvenile Courts reported 31,395 referrals of children alleged to be delinquent, dependent, and neglected, or to have violated traffic laws. This involved 25,116 different boys and girls. Seventeen thousand two hundred and forty of the referrals were for delinquency, the rest being cases of dependency and neglect, traffic violations and special proceedings. A good many of the referrals were of a minor nature and were disposed of by a warning or an adjustment satisfactory to all parties concerned. These figures, of course, represent only the cases disposed of by the courts, not a full acount of the extent of delinquency, dependency and neglect in Florida.

The Florida State Department of Public Welfare has broad responsibilities for the welfare of children. Their child welfare workers and other social workers help with many family and children's problems, including those relating to juvenile delinquency. In 57 counties they make admission studies on the children committed to the facilities of the Florida Division of Child Training Institutions. The Child Welfare Division has a full time juvenile court consultant.

The Florida Children's Commission engages in fact finding and coordination of services. They also review legislation and appropriations in such fields as health, child guidance, social service, education, recreation, child labor, juvenile courts, probation and parole service, and detention facilities. They encourage local community action through County Children's Commissions.

The Child Guidance and Mental Health Clinics and mental health workers in County Health Departments, (described elsewhere in this issue), are playing a significant role in helping with the mental health needs of disturbed and delinquent children and their families.

Some civic and religious groups have taken a special interest in juvenile delinquency and, among other activities, have fostered the development of Big Brother and Big Sister programs.

"It is not enough to make the run-away child stay at home, the truant come to school, the sullen smile, or the disinterested do his home work. Too often these are only on-the-surface disturbances; the real problem lies much deeper and it is the real problem that

must be discovered and treated." While a head start has been made in Florida, many more facilities and personnel are needed if the real problems related to juvenile delinquency are to be discovered and treated.

"About half of the children brought to juvenile courts are held in some type of detention brought to juvenile courts are held in some type of detention before a hearing. Theoretically a detention home should be a place where rehabilitation begins. Instead, many detention facilities contribute to further delinquency. The National Probation and Parole Association has described detention in the United States as 'a national disgrace'." So says an expert.

In many areas of Florida, detention facilities for juveniles are woefully inadequate. How are they in your community?

DIVORCE AND RELATED FAMILY PROBLEMS

There were 32,149 marriages in Florida during 1957. But during that same year 18,577 divorces were granted. Florida's peak divorce rate was in 1946, and some experts think this may have been caused by the impact of war on marriage and family life. Fortunately, since 1946, the trend has been generally downward.

It has long been recognized that such family problems must be attacked on two major fronts: (1) improving unfavorable social conditions; and (2) strengthening the capacities of individuals and families to handle life's problems.

While there is no way of knowing just exactly how many families are troubled in their relationships with one another, the final breakup of marriage as signified by divorce is one measure of family breakdown. Among other factors, the problems associated with divorce are related to such mental health problems as immaturity, mental illness, alcoholism, and mental retardation. Marital problems in turn cause others, not only for the involved adults, but also for the children who are often caught between the warring parents.

While a number of Florida agencies deal with the problems faced by families, (family counseling agencies), the special services given by voluntary family and children's agencies, usually community chest and/or church supported, are available *only* in Jacksonville, Miami, Fort Lauderdale, Tampa and St. Peters-

burg. Even these agencies are inadequately staffed for the job they are called upon to do.

Among the statewide services available to families are those of the Florida Sate Department of Public Welfare which, along with financial assistance, provides social work services designed to assist eligible families with the many other problems they face along with their economic problems. In addition, this agency provides child welfare services irrespective of family income. That these services, despite the limited personnel available, reach broken homes is attested to by a look at some of their recent figures. Of the 5230 children worked with by child welfare workers between July 1, 1956 and June 30, 1957, 841 were children of divorced parents and 866 were children of separated parents.

Florida's 16 mental health and child guidance clinics are frequently called on to assist with family problems related to mental health problems. The Florida Alcoholic Rehabilitation Clinics provide help with family problems related to alcoholism. Many families turn to their physicians, ministers, and attorneys for assistance, and these professional groups have been paying increased attention to problems of family life. Family life education programs are available in

many of Florida's high schools and adult education groups.

One thing Florida has done about the problem of divorce became effective in October 1957. The 90-day divorce law was amended to require six months' residence before the filing of a petition for divorce. This law does not actually attack the divorce problem; it only puts up a barrier to the importation of divorce cases.

A proposal that would cut down the number of divorces, which is advocated by some of Florida's judges and ministers, would require marital counseling before divorce proceedings. Such a proposal, however, would call upon communities to greatly increase the number of agencies that offer counseling. It is clear that such agencies are very necessary; professional workers are needed, not just for patching and mending, but also for premarital counseling and family life education, so that the tide of unhappiness and family breakdown can be curbed.

MENTAL ILLNESS

Florida's willingness to recognize, diagnose and treat its adults and children with mental illness has never been more hopeful. There has been a 89 per cent increase in the number of patients treated in the past six years. This increase just about matches Florida's gain in population. Nine hundred and ninety-two patients of this 3416 patient gain were made possible with the construction of the new South Florida State Hospital in Broward County in March 1957. Another new hospital in Macclenny, to be completed and activated in the summer of 1959, will increase even more the number of beds available.

The increase in admissions to our state hospitals each year do not necessarily reflect only the growing population of the state, nor do they necessarily mean the population is becoming "more sick". They do, however, demonstrate recognition of *the value of early hospitalization and treatment for mental illness.*

Those responsible for our state hospitals have considered many new developments in patterns of patient care. For example, a statewide outpatient clinic program for pre-admission and after-care services is being considered after the regional hospital construction is completed, since the efficient operation of the clinics is dependent on full scale operation of the nearby hospitals. "Day care" and "halfway houses", relatively new

ideas in operation in some other parts of the country, are being considered. The state hospitals have also entered into preliminary planning with the State Vocational Rehabilitation program in the hope the "sheltered workshops" may be eventually established. These workshops could offer assistance in part-time employment when the patient enters his readjustment period and thereby lessen the chance of his return to the hospital.

Gradual expansion of social service and more extensive psychiatric care has been going on in the last few years in our state hospitals. Occupational and recreational therapy and the employment of chaplains are likewise welcome improvements.

Florida has made great progress. However, many problems remain to be solved. Here are a few:

Waiting Lists

The waiting lists for admission to our state hospitals are made up largely of *aged persons* with psychiatric difficulties. These patients do not respond as readily to treatment because many suffer organic brain diseases, and other complicating physical conditions such as heart disease. Their care is a medical and economic burden on the family so their stay in the hospital may be longer than necessary. The great need is for more geriatric clinics in local general hospitals; more programs for the aging in local communities; more use of the abilities of the aged; broader type care, at reduced cost, in nursing home or retirement homes; more research, such as is now in progress in Miami and St. Petersburg, in caring for and understanding the needs of the aged; greater attention to family attitudes which affect the family's willingness to care for the aged.

Better Care for Criminally Insane

It is apparent to many in the state that Florida has not effectively dealt with the problems of care, treatment, and follow-up of the *criminally insane.* Our state hospitals are not equipped to help those whose anti-social and criminal acts are secondary to serious emotional and personality disorders. It is hoped that eventually adequate diagnostic and treatment facilities will be developed in the penal system to meet this need. This is true also in the case of those with *narcotic addiction* .

Suicide

In 1957 suicide ranked as the eleventh leading cause of death in Florida. During that year 490 persons committed *suicide.* A study of the problem shows that suicide rates rise sharply with increasing age, and deaths occur chiefly among persons in or past middle age. Death rates are also much higher for men than wom-

en, and for whites than non-whites.

During the past five years, there has been no significant change in the suicide rate in Florida, though it is slightly above the average for the United States.

Psychotic Children

While only a small proportion of Florida's children and adolescents are considered psychotic (seriously disturbed), it is estimated that there are over 200 who are mentally ill to such an extent that they are not usually helped much by outpatient clinics, school guidance programs, juvenile courts, welfare planning or other such resources. These children need residential care and treatment. Several plans have been proposed to the Legislative Interim Committee on Mental Health in anticipation of the 1959 session of the Legislature. Most seem to agree that some beds should be provided. There must in addition be developed adequate child placement and group care services for pre-admission and post-discharge care, adequate clinics, some changes in existing commitment laws and in existing state hospitals to accommodate those children who are suitable subjects for such a center. Broward and Dade Counties are both presently laying plans for small residential treatment centers.

(Note: The Legislative Interim Committee on Mental Health recently appointed a sub-committee to draw up definite legislation to be presented to the 1959-61 Legislature to build a residential center for seriously disturbed children on the grounds of the South Florida State Hospital at Hollywood. The Committee hopes that construction can begin in the summer of 1959.)

AGING

It has been the general belief that Florida is the "Land of Older People." But 1950 statistics showed that 19 states had more people over 65 than Florida, and that the percentage of older people in Florida was 8.6 per cent as compared to 8.1 per cent, the national average. According to United States population census figures for 1950, there were 237,474 persons age 65 and over; as of July 1, 1956 it was estimated that there were over 385,000. According to 1957 statistics, the number of individuals over 65 in the state had increased, and constituted 8.9 per cent of the population. The significant fact is that Florida's population of people over 65 years is increasing at a rate greater than the other states.

Growing older is a gradual process much more rapid for some people than for others. Aging may occur in individuals, who chronologically speaking, are relatively young; and continued youthfulness or delayed aging is often found among men and women of advanced age.

The process of aging involves physical deterioration and varying degrees of emotional or mental changes. Physical changes may include diseases of the heart and blood vessels, high blood pressure, hardening of the arteries, nutritional disorders, difficulties of vision or hearing, brittle and easily broken bones, skin changes, muscle and joint disorders such as arthritis, infections and various types of growths. Fatigue may result from only moderate exertion. The individual may be unable to concentrate or to apply himself as effectively as formerly.

Emotional changes, too, are common in older people, such as worry, anxiety, restlessness, depression or irritability. Even though people want to live long and well, no one wants to grow older, and some resent the aging process. Memory and mental processes may deteriorate and concentration may be difficult. On the other hand, in some individuals, mental functioning continues at its former level. Sound judgment is displayed by many older people and they are frequently considered more stable, trustworthy, and responsible, even though their rate or production may decline slightly.

What can be done about these changes? The first need is for a physician who is familiar with the process of aging, to make periodic examinations. He can determine the condition of the individual's health, and watch for signs of ailments. He can usually discover beginning symptoms and often prevent serious illness. If illness should develop, the doctor will have an accurate picture of his patient's condition, and can begin treatment at once, giving the individual the assurance that he is receiving the best care possible.

Even though more adequate health services are needed, older people frequently do not have sufficient funds for them. Among these are out-patient clinics, hospitalization insurance plans, nursing homes, homemaker and home nursing services and nutrition advice.

In the field of health-related services, counselling and social services are needed; in the field of employment, pre-retirement preparation and flexible retirement programs are constantly being studied by various groups. Intensive research is needed and plans must progress on the basis of wishes and preferences of the older people themselves.

MENTAL HEALTH AND CHILD GUIDANCE CLINICS

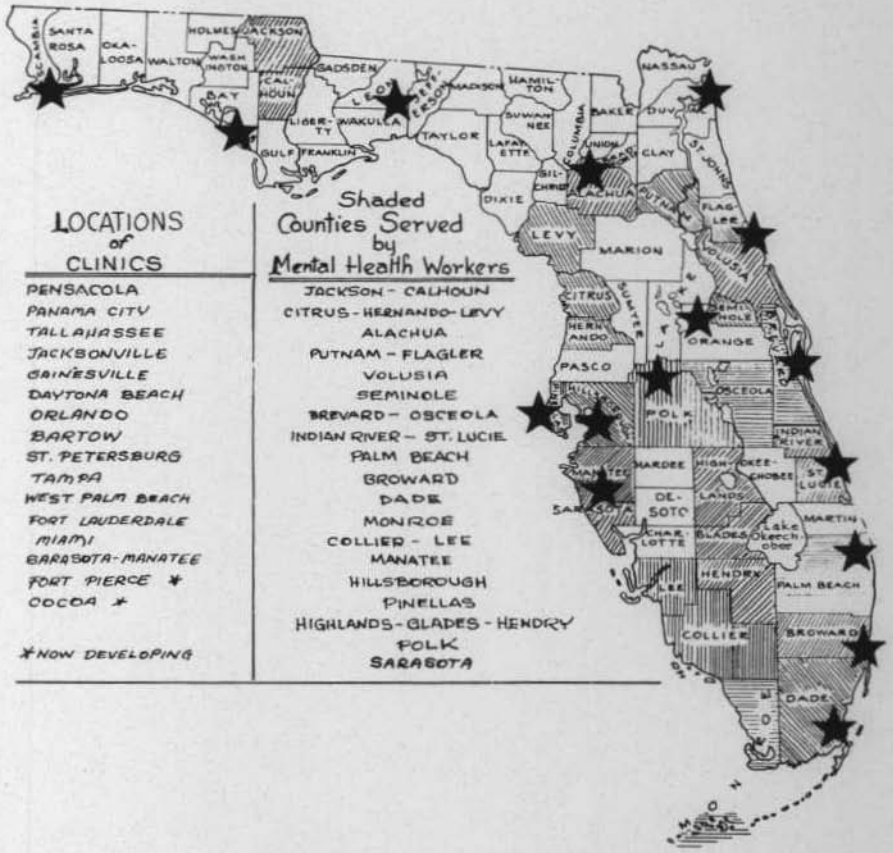
Last year 5306 children and their parents received some type of professional service from the state's 16 child guidance and community mental hygiene clinics. These clinics are located in Florida's largest cities and are available to anyone needing help in understanding more about their relationship with their child and how they can best help the child mature. Some of these clinics accept adults also. Many people have the mistaken impression that these clinics are only for mentally ill (psychotic) children, yet last year only 49 children (who came to these clinics) under the age of 13 were diagnosed as psychotic. Most of the other children did not require long-term extensive treatment and the average number of visits is six. The clinics usually charge a fee when the family can afford it; however, no one is turned away merely because they cannot afford to pay for the cost of the service. In addition to the diagnosis and treatment which the clinics offer, the personnel make themselves available for consultation to community agencies, for lectures and mental health programs with PTA's and other interested groups. They also spend a great deal of their time interpreting child growth and development to parents so that they can better understand the needs of children. In this way many parents find that they do not need clinic service after all, and are able to handles their problem themselves.

Unfortunately, children must often be on the waiting lists of most of these clinics for several weeks. Many clinics have used group education and group treatment plans to reduce waiting lists for service. Problems of more funds for more staff, more regional clinics, and more housing space are all obvious. In the past few years the clinics have begun to realize that they must more widely use the services of ministers, nurses, welfare workers, police officers and others. They realize only too well that a clinic cannot operate in a vacuum and that a wider network of community services is very important in order for the community to use the clinic most effectively. A list of all of Florida's 22 out-patient psychiatric clinics is included elsewhere in this pamphlet. These clinics last year saw 10,177 patients for diagnosis and/or treatment or other services. New clinics in Fort Pierce and Cocoa are being developed and expect to be in operation in 1959.

MENTAL HEALTH WORKERS

One of the important developments in Florida in the past few years has been the *mental health worker program*. As of January 1, 1959, 22 mental health workers have been employed in County Health Departments to assist the county health officer in developing a mental health program in his area. Funds are being requested from the next session of the legislature to add enough mental health workers to make one available for all 38 county health units in Florida. The mental health workers usually offer mental health consultation to their fellow County Health Department employees, to other health and welfare agencies, mental health organizations, and help the community recognize the need for preventive and educational services rather than clinical (diagnosis and treatment) services only. During the past year, for example, these are some of the services mental health workers have performed in their respective counties:

Helped in the development of a mental health association; assisted public health nurses in



Let us define mental health as the adjustment of human beings to the world and to each other with a maximum of effectiveness and happiness. No just efficiency, or just contentment—or the grace of obeying the rules of the game cheerfully. It is all of these together. It is the ability to maintain an even temper, an alert intelligence, socially considerate behavior, and a happy disposition. This, I think, is a healthy mand.
KARL MENNINGER, M.D.

follow-up of patients from the state hospitals; worked with the judge on pre-commitment studies of patients going to state hospitals; assisted in the development of testing services in the public schools; helped in the development of a community mental health clinic; conducted workshops and seminars for teachers in emotional growth and development of children; organized a series of workshops on mental health for the ministerial association; worked closely with the judge of the juvenile court in organizing youth recreation programs and discussion groups for parents of offenders; organized the community to survey its mental health resources and needs.

SCHOOLS

At present Florida has some guidance counselors in the school system; however, less than half of these are full-time and many are not fully trained. Florida's Legislature will have an opportunity at this next session to decide whether Florida will participate on a matching fund basis with the Federal government which recently passed a guidance program appropriation bill for grants to states on a matching fund basis. Many students have difficulty in adjusting to their school program and there should be someone in the school system who is skilled and competent in helping such students. Those with more serious emotional disturbances can be referred for help to the nearest child guidance clinic. The Bureau of Mental Health and the Bureau of Maternal and Child Health of the State Board of Health, with the advice and guidance of the state and local medical associations, are planning increased participation in school health services during this next year, through the County Health Departments. It is hoped that *school mental health* will be an integral part of this important development.

TRAINING AND RESEARCH

An Act of the 1955 Florida Legislature created a Council on Training and Research in Mental Health. The Council advises and recommends to the State Board of Health: (a) The administration of funds appropriated, (b) award of training grants for study in psychiatry, clinical psychology, psychiatric nursing and psychiatric social work, and (c) allocating funds for mental health research projects.

PSYCHIATRY

Five physicians have completed residence requirements in psychiatry at The Institute, Jackson Memorial Hospital, Miami, with 17 in training at present. Eight of these have been awarded Council Scholarships.

The University of Florida College of Medicine, functioning as a part of the University's J. Hillis Miller Health Center, is directly concerned with the teaching of physicians at the regular medical school level and as specialists.

PSYCHIATRIC NURSING

Five nurses have completed study (on scholarships) and are employed in psychiatric nursing and public health. Six are currently enrolled in advanced programs. Financial assistance was provided through the Council for five nurses to attend a two-week workshop on *Teaching and Implementation of Psychiatric Mental Health Nursing* at Catholic University, Washington, D. C., during 1957.

In 1957, and again in 1958, two public health nursing supervisors attended a course in mental health in public health nursing offered by the University of Minnesota School of Public Health.

Twenty-three nurses attended a two-week work conference in 1958 in Psychiatric Nursing at Florida State University.

Grants from the National Institute of Mental Health have made possible an increase in the number of psychiatric nursing instructors at Florida State University, the University of Florida and University of Miami.

Extension courses in *Interpersonal Skills* and in *Psychiatric Nursing* are being offered to employed nurses in several areas through the nursing education program of the University of Florida and Florida State University.

Clinical experience in psychiatric nursing is offered at South Florida State Hospital for basic professional nurse students enrolled at University of Miami and Barry College.

Five of the 15 practical nurse schools in Florida offer hospital experience in psychiatric nursing in their basic studies.

CLINICAL PSYCHOLOGY

The University of Florida has conferred the Ph.D. in Clinical Psychology on 19 candidates since January 1957. Current enrollment in the Graduate School is 58.

The University of Florida Center for Clinical Services and the College of Education are cooperatively offering graduate training in Vocational Rehabilitation Counseling.

Eight graduate students in psychology have been awarded scholarships for study through the Council on Training and Research program.

PSYCHIATRIC SOCIAL WORK

In 1956 there were seven second year students placed in psychiatric positions, and 1957, 16 second year students placed. For the current year there are 24 such placements.

A research program is underway at the University of Miami Medical School with initial projects of (1) studying the newer drugs, and (2) personality qualifications for selection of residents (physicians) in psychiatry.

Research being started at the University of Florida involves analysis of the patterns of thinking of patients with various psychiatric illnesses, and an epidemiologic study (occurence and distribution) of psychiatric illness.

Funds provided through the Council, the National Institute of Mental Health, and the Children's Bureau are being used to support, in whole or in part, a number of studies and research

projects directly related to or having broad general implications for mental health in Florida: (1) evaluation of improvement in health exhibited by a group of patients treated by a "Total Push Program" (Miami); (2) a study of the characteristics of patients in the Florida Mental Hospital at Chattahoochee; (3) South Florida Hospital to study cerebral metabolism of certain blood elements in mental illness; (4) the adjustment of the furloughed mental hospital patient to his home and community; (5) University of Miami to study "Relationships between the authoritatian ideology of young adults, their estimates of their parents' attitude toward authority and the actual attitude of their parents toward authority"; (6) Yerkes Primate Laboratory, Orange Park, Florida, to study "Effect of early experience on psychological development"; (7) home care of the mentally retarded child; (8) the characteristics of nursing home populations, and (9) a research team from the National Institute of Mental Health has been assigned to Seminole County to observe teacher-pupil relationships, and to study the preliminary screening by teachers and school nurse in referring pupils with emotional problems.

THE ADULT OFFENDER

Florida's crime rate seems to be on the increase. As of June 1958, 147 persons out of each 100,000 of the adult population of the state were in our prisons. Still others were being supervised on probation and parole. The number of prisoners amounted to a 14 per cent increase over the previous year, the highest per cent gain of any state in the United States.

To do something about the problem of crime begins with and is always a responsibility of the community and all citizens. To this end we have police departments, the legal functions of prosecution and defense, courts, jails and prisons, and probation and parole. This calls for well-trained police officers, adequate jails, and courts with adequate personnel.

DEALING with those who come to the attention of the police, calls for a working knowledge of mental illness. To help with this understanding, some of the Mental Health Associations in the state have provided and encouraged the use of the pamphlet *How to recognize and Handle Abnormal People: A Manual for Police Officers.*

The Florida Parole Commission provides supervision for adult offenders who have been placed on probation or parole. Their program involves developing a complete social case history based on the individual's personality, family, past record, attitude, environment, education, and helping the parolee to make a satisfactory readjustment to society.

THE FLORIDA DIVISION of Corrections is charged with the care, custody, discipline, control and rehabilitation of adult prisoners. They have pointed out: (1) the need for more adequate psychiatric screening of prisioners so that persons who are mentally ill, and therefore not capable of adjusting to prison, might be first sent to a hospital for the mentally ill; (2) additional facilities to house the prison population adequately, together with sufficient personnel to man the prisons and contribute to the rehabilitation of as many of the adult offenders as possible. The Legislature has given recognition to the problem and construction plans are under way; (3) additional personnel for the Florida Parole Commission to help in the rehabilitation program, and (4) more attention to crime prevention.

THE MENTALLY RETARDED

When we speak of mental retardation, we have in mind the child who used to be called feeble-minded or slow. What we call them is unimportant as long as we all understand the group that we are talking about—a group of children which seems to be increasing by leaps and bounds.

We are not sure why we find an increasing number of these mentally retarded children. Perhaps we are doing a better job in spotting mental deficiency, or perhaps parents are no longer hiding their afflicted children from the world. Whatever the reason, the fact is that we have more of these children to deal with than ever before.

It is probable that of the 103,419 children born in 1957 in Florida, three per cent (3103) will never achieve the mentality of a twelve year old child: three-tenths per cent (310) will remain below the seven-year old level; and one-tenth per cent (103) will be completely helpless and unable to care for their most basic needs.

While these figures seem a

little frightening, it is encouraging to know that about 75 per cent of these retarded children will have an I. Q. between fifty and seventy-five. Children in this group respond to training and supervision, and can be helped to become reasonably productive citizens. About 20 per cent will have an I. Q. between twenty-five and fifty. Some of these children can be helped if adequate diagnostic and training facilities are available; but the outlook for these children is not nearly as hopeful as it is for the brighter mentally retarded child. About five per cent will have an I. Q. of less than twenty-five and be completely helpless.

Knowing the size of our problem, we must then ask ourselves: what is being done and what more needs to be done for these children?

First, we must get to know the individual child. This is called *diagnosis*, and at the present time the Developmental Evaluation Clinic at Miami (sponsored by the State Board of Health), the Sunland Training Center at Gainesville, the Child Guidance Clinics throughout the state, and private physcians are cooperating in their efforts to diagnosis the real problem of the children who are referred to them as mentally retarded. This diagnosis is sometimes difficult because other diseases or handicaps such as cerebral palsy, malnutrition, behavior disorders and

other conditions imitate mental retardation. In other words, many of the children who appear to be mentally retarded are really suffering from some type of physical ailment which masquerades as mental deficiency.

If the child is found to be mentally retarded, the question then arises as to the best program of education to train him toward becoming a self-supporting and contributing member of our society. In many communities the public schools have special classes for slow learners. In some communities, where children are not eligible for admission to slow learning classes, private schools have been developed by the Association of Parents of Retarded Children. In both types of schools, the teachers are specialists who have been trained to work with these children.

When community resources are not available, the child may be sent to the Sunland Training Center in Gainesville. Here, an intensive training program is carried on. It is hoped that over the years, more of the young people who enter Sunland will be able to return to their communities as self-supporting citizens.

Of course, the real problem confronting all of us is the way in which this defect, mental retardation - can be prevented. This means that there must be an intensive research program to investigate those causes in the family, the community, or within the child himself, which result in his lack of mental ability. At the present time various research programs are being sponsored by the Children's Bureau and the National Institutes of Health throughout the United States, in an attempt to determine the causes of this problem. Until we find out what causes mental retardation, we must be sure that the youngsters so labeled are really mentally deficient, and if they are, to give them the most adequate training possible.

FLORIDA'S PSYCHIATRISTS

The most recent Directory of The Florida Psychiatric Society shows Florida's psychiatrists to be distributed by counties as follows:

Alachua	4	Leon-Gadsden-Liberty-Wakulla-Jefferson	7
Broward	4	Orange	4
Dade	31	Palm Beach	2
Desoto-Hardee-Highlands-Glades	1	Pinellas	8
Duval	9	Polk	2
Escambia	5	Sarasota	3
Hillsborough	9	Volusia	2

PUBLIC AND NON-PUBLIC INSTITUTIONAL FACILITIES FOR THE TREATMENT OF MENTAL DISORDERS IN FLORIDA

State Psychiatric Institutions

Florida State Hospital, Chattahoochee
Florida State Hospital, Arcadia
South Florida State Hospital, Hollywood
Northeast Florida State Hospital, Macclenny (to be open in Summer 1959)

Veterans Administration Hospitals

Bay Pines, St. Petersburg
Coral Gables, Miami

Private Psychiatric Institutions

Dr. Miller's Sanitorium, Jacksonville
(short-term care of alcoholics)
Grant Haven Convalescent Home, Jacksonville
Jacksonville Convalescent Home, Jacksonville
Ballast Point Manor, Tampa
Anclote Manor, Tarpon Springs
Cedars Hospital, Gulfport
(primarily short-term care of alcoholics)
Bayou Sanitarium, St. Petersburg
(now licensed as a nursing home)
White Cross Hospital, St. Petersburg
(primarily short-term care of alcoholics)
Miami Medical Center, Miami
Miami Sanitarium, Miami

General Hospitals Maintaining Psychiatric Units

Duval Medical Center, Jacksonville
Halifax District Hospital, Daytona Beach
Tampa General Hospital, Tampa
Mound Park Hospital, St. Petersburg
Jackson Memorial Hospital, Miami
Memorial Hospital, Hollywood
Florida Sanitarium, Orlando
St. Vincent's Hospital, Jacksonville

General Hospitals Admitting Psychiatric Patients

Baptist Memorial Hospital, Pensacola
Baptist Memorial Hospital, Jacksonville

The General Hospitals

Out of the approximately 170 general hospitals in Florida only eight maintain psychiatric units for the care and treatment of the mentally ill and only a few routinely admit psychiatric patients. Actually this represents a pitifully small number of beds available to the mentally ill outside of the state institutions when one considers the size of the problem. Dr. Francis James Braceland, past president of the American Psychiatric Association, has said, "It is interesting to note that there are some institutions which still maintain the fiction that they do not admit psychiatric patients, though all of us know that they have them and have them in profusion. But they are there in other guises, hidden under various diagnoses which purportedly have pleasanter designations, but in the end fool no one."

The American Psychiatric Association and the Florida Psychiatric Society are working diligently to encourage more of the general hospitals in Florida to plan and provide beds and services for mentally ill patients. The psychiatrists point out that most of the hospitals could provide beds and services because they are already dealing with mental and emotional illness under other guises. As time goes on the State Board of Health hopes to see many general hospitals providing care for mentally ill citizens.

Florida's Outpatient, Mental Health and Child Guidance Clinics

BARTOW

Polk County Guidance Center, 410 N. Hendry Avenue
Alan Gessner, Ph.D., Director

BRADENTON-SARASOTA

Manatee-Sarasota Guidance Center, Bradenton-Sarasota Airport
Max Reed, Ph.D., Director

DAYTONA BEACH

Mental Health Unit, Volusia County Health Department, 122 N. Ridgewood
Miss Alice Summers, Acting Director

FORT LAUDERDALE

Broward Mental Hygiene Clinic, Inc., 16 S.E. 13th Street
Henry Bessette, Ph.D., Executive Director

FORT PIERCE

St. Lucie-Indian River Area Mental Health Clinic, 210 S. Fifth Street
Neill Miller, M.D., Director

GAINESVILLE

Alachua County Health Department, Division of Mental Health, 816 S.W. 4th Ave.
Edward G. Byrne, M.D., Director
Florida Center of Clinical Services, University of Florida, 339 Administration Building.

JACKSONVILLE

Alcoholic Rehabilitation Clinic, 1241 McDuff Avenue, South
C. Brooks Henderson, M.D., Director
Duval County Child Guidance & Speech Correction Clinic, 635 Ocean Street
Ralph M. Dreger, Ph.D., Director
Duval Medical Center Memorial Unit, 2000 Jefferson Street
Sullivan G. Bedell, M.D., Director

MIAMI

Alcoholic Rehabilitation Clinic, 1637 N. W. 19th Avenue
Louis Rogel, M.D., Director
Dade County Child Guidance Clinic, 1350 N.W. 14th Street
Leonard T. Lesser, M.D., Director
Jackson Memorial Hospital, The Institute, Dept. of Psychiatry & Neurology
John Caldwell, M.D., Chairman

ORLANDO

Orange County Guidance Clinic, 832 W. Central Avenue
E. F. Meares, M.D., Director

PANAMA CITY

Bay County Child Guidance Clinic, 619 N. MacArthur Avenue
Pauline Fertsch, Ph. D., Director

PENSACOLA

Alcoholic Rehabilitation Clinic, 1107 West Aveny Street
Roger Sherman, M.D., Director
Escambia County Child Guidance Clinic, 2251 N. Palafox Street
Dan C. Overlade, Ph.D., Director
Escambia County Mental Health Clinic, 2251 N. Palafox Street
Elsie R. Broussard, M.D., Health Officer

ST. PETERSBURG

Child Guidance Clinic of Pinellas County, Inc., 4032 Central Avenue
Alfred D. Koenig, M.D., Director

TALLAHASSEE

Mental Health Clinic, Leon County Health Department, S. Gadsden & Gaines Sts.
Kent Miller, Ph.D., Administrator

TAMPA

Alcoholic Rehabilitation Clinic, 420 West Lafayette Street
Arturo Gonzalez, M.D., Director
Hillsborough County Guidance Clinic, 405 E. Ross Avenue
Elizabeth Rockwell, M.D., Director
Tampa General Hospital, Outpatient Clinic, Davis Islands
Mr. Arthur G. Burns, Director

WEST PALM BEACH

Palm Beach County Guidance Center, 419 Fifth Street
Charles Taffel, Ph.D., Director

FLORIDA STATE BOARD OF HEALTH

1217 Pearl Street or P. O. Box 210
JACKSONVILLE, FLORIDA

HON. LEROY COLLINS
Governor of Florida

BOARD MEMBERS
Charles J. Collins, M.D., President
Orlando

T. M. Cumbie, Ph.G., Vice-President
Quincy

Sullivan G. Bedell, M.D., Member
Jacksonville

John D. Milton, M.D., Member
Miami

F. P. Meyer, D.D.S., Member
St. Petersburg

WILSON T. SOWDER, M.D., M.P.H., State Health Officer
Albert V. Hardy, M.D., Dr. P.H., Assistant State Health Officer

Division of Health Information
Elizabeth Reed, R.N., B.S.

Librarian
Barbara Beckner, B.A., M.S.L.S.

Bureau of Local Health Service
Wade N. Stephens, M.D., M.P.H.

Division of Public Health Nursing
Ruth E. Mettinger, R.N.

Division of Sanitation
A. W. Morrison, Jr.

Nutrition Services
Mary B. Deaver

Bureau of Finance and Accounts
Fred B. Ragland, B.S.

Bureau of Vital Statistics
Everett H. Williams, Jr., M.S.

Bureau of Dental Health
Floyd H. DeCamp, D.D.S.

Bureau of Narcotics
Frank S. Castor, Ph.G.

Bureau of Laboratories
Nathan J. Schneider, Ph.D.,

Bureau of Mental Health
Wayne Yeager, M.D., M.P.H.

Bureau of Entomology
John A. Mulrennan, B.S.A.

Bureau of Sanitary Engineering
David B. Lee, M.S., Eng.
Sidney A Berkowitz, M.S. Eng.
Ass't. Director

Division of Water Supply
John B. Miller, M.P.H.

Division of Waste Water

Bureau of Preventable Diseases
C. M. Sharp, M.D.
Epidemiologist
James O. Bond, M.D., M.P.H.

Division of Venereal Disease Control

Division of Tuberculosis Control

Division of Veterinary Public Health
James E. Scatterday, D.V.M., M.P.H.

Division of Industrial Hygiene
J. R. Reid, M.D.

Bureau of Special Health Services
L. L. Parks, M.D., M.P.H.

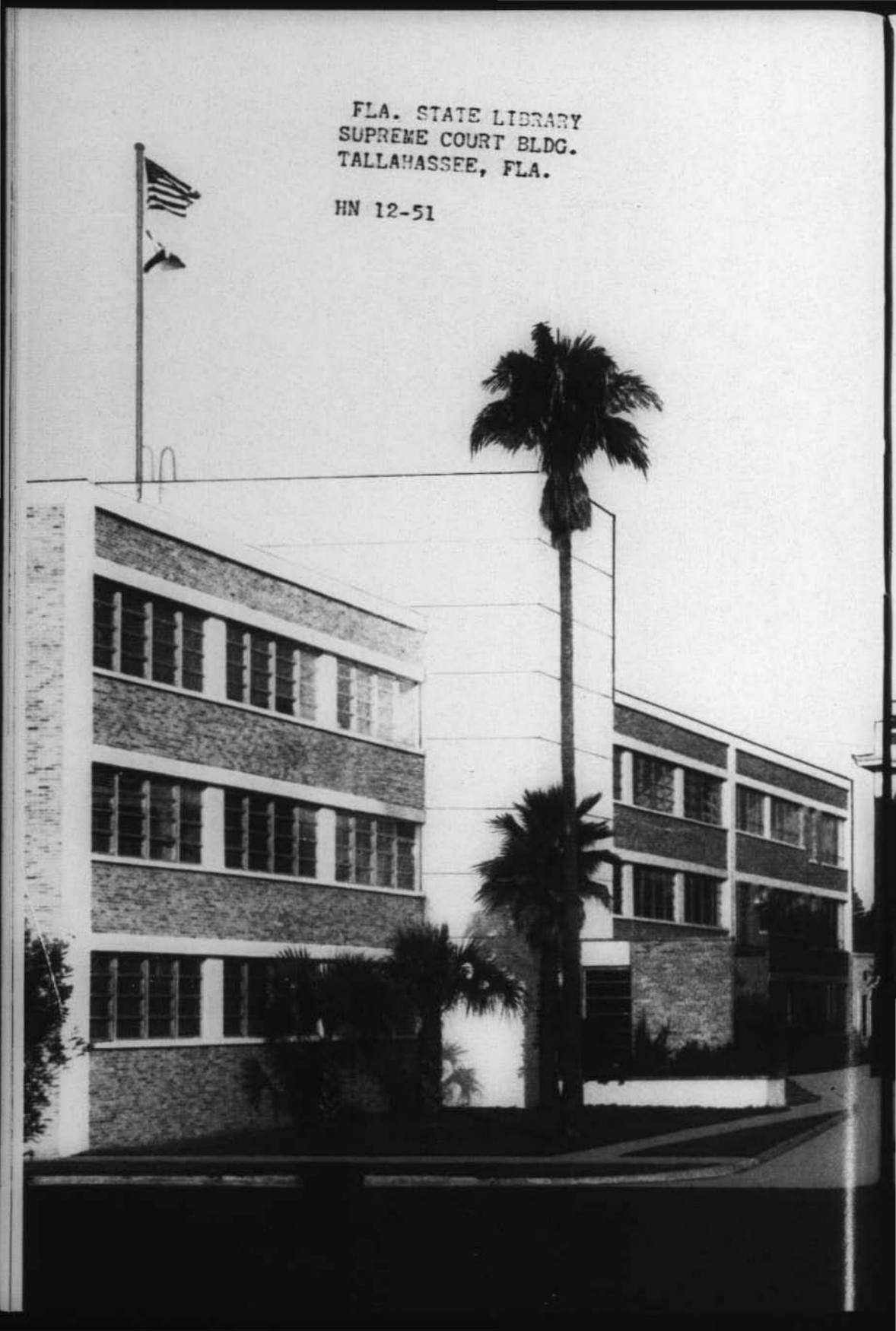
Division of Hospitals & Nursing Homes
John L. Enyart, M.D., A.B.

Division of Chronic Diseases
Heart, Cancer and Diabetes

Bureau of Maternal and Child Health
Simon D. Doff, M.D., M.P.H.
E. L. Flemming, Ed.D.
Ass't. Dir.

All Counties in Florida have organized county health departments, except St. Johns County

FLORIDA HEALTH NOTES published by Florida State Board of Health since 1892



Florida HEALTH NOTES

Health and Housing...

The connection between health and housing is unfortunately not always apparent. Nevertheless, there is every indication that these are intimately connected both directly and indirectly. A little reflection makes it obvious that proper screening of windows and doors is a means of preventing the transmission of several diseases by insects. Also the absence of breeding areas for disease-bearing mosquitoes is necessary for protection from such diseases. Similarly, a favorable environment is needed to insure comfortable living and freedom from pestiferous insects which do not in themselves transmit disease. A safe water supply and a satisfactory sewage disposal system are basic requirements for the prevention of a large number of diarrheal diseases including typhoid fever. Proper shelter from the elements, proper lighting, and sufficient room have not only a direct but indirect bearing on the maintenance of health and comfort. Carefully designed homes, free from fire hazards and other accident-causing factors, are also of major importance.

It has been a well-known fact for many years that such major diseases as tuberculosis and venereal disease, and high infant mortality rates are concentrated in areas of poor housing, as is also juvenile delinquency and a host of mental and social disorders connected with the depression of the human spirit. These are only a few of the reasons why every citizen should exert every effort to provide better housing for everyone. Elsewhere in this issue of Health Notes will appear more details on the benefits of good housing on health as well as on the economy of our state.

WILSON T. SOWDER, M.D.

State Health Officer

A Man's Castle

FLORIDA HAS A HOUSING PROBLEM. Sub-standard housing exists in differing degrees throughout the state—and is creating public health and social problems which stem from unsightly appearance, overcrowding, poor ventilation and lighting — and other undesirable outcomes.

Is poor housing a concern of the Florida State Board of Health? Of all of Florida's citizens? Do we have a stake in this problem? Most of us live in comfortable houses in attractive neighborhoods. Our homes are warm on cold days. We have light airy rooms with screened windows, running hot water, good lighting and sanitary sewage disposal. We do not sleep four or five in a bed, heat our homes with a small kerosene heater, get our water from a tap in a neighbor's yard—and our babies do not contract pneumonia because the wind whistles through cracks in the wall.

In both urban areas and in migrant camps, being too close together is a problem. One result is the accumulation of rubbish around and under the houses which aids in the spread of vermin and parasites, such as intestinal worms.

Public health authorities say we do have a definite obligation in the problem of poor housing. Our taxes pay for the clinics and free hospitalization of people whose poor environment has contributed to their illness. Tuberculosis thrives in crowded slum areas. Infant diarrhea is more prevalent in shacks. The common communicable diseases of children seem to often exact a greater toll of those who live in undesirable neighborhoods. The venereal disease rate is higher.

There are other costs to the community, too, as everyone knows. Law enforcement—police and courts — takes money and time and many cases originate in slum areas. Property values go down when a slum area develops nearby.

Rats nest, mosquitoes breed and human health deteriorates in an environment like this.

A person who has adequate living quarters in a pleasant neighborhood is less apt to pass disease on to his family and neighbors. He is healthier and happier, does better work, is absent from his job less often and probably earns better wages. The family and community benefit in many ways when the individual is better housed.

Another Aspect

ONE SERIOUS PROBLEM created by bad housing is that of impaired mental health and moral character. People jammed too close together in drab surroundings tend to lose their incentive toward good social behavior and sense of propriety. The mother with her children literally under foot at all times becomes irritable and

FLORIDA HEALTH NOTES

Published monthly except July and August on the 5th of the month by the Florida State Board of Health. Publication office, Jacksonville, Fla., headquarters of the State Board of Health. Entered as second class matter, Oct. 27, 1921, at post office, Jacksonville, Fla., Act of Aug. 24, 1912. It is intended primarily for individuals and institutions with an interest in the state health program, public and private. Permission is given to quote any story. Clipping of quotations or excerpts would be appreciated.

tends to quarrel with those around her. Children who grow up without a chance to learn that certain physical functions should be private cannot develop a moral sense acceptable to a civilized community. Over and above all there is a feeling of sordidness and hopelessness that often pervades life when one's surroundings are dirty and crowded. A child who is born and reared in such surroundings can develop into a socially acceptable person, but seldom does, and the reasons are understandable.

What Is It?

SUB-STANDARD and/or slum housing is defined in different ways—according to the community and the agency doing the defining. Boiled down, it is a negative statement: It is housing that does not provide sufficient space, protection from weather, privacy, cleanliness and facilities for maintaining health and sanitation. The general effect of a dirty, ramshackle, vermin-infested house or apartment is easy to see. Too many of Florida's permanent residents as well as many migrant agricultural workers live in just such quarters (and any would be too many—but it's more than a few). We really do not know exactly how much substandard housing we have. The 1950 Federal census went into the matter in detail, but its figures are now more history then news. At that time the state had 952,131 dwelling units and more than a third — 367,293 — were in some respect undesirable for human habitation.

The picture is lopsided as far as the races are concerned. Of the 640,732 units occupied by whites in 1950, almost a third were substandard. Of the 148,693 occupied by non-whites, over three-fourths were below par. Of course since then much publicity has been given to the work done by both local and national housing authorities to change this picture. Progress has been made but only the 1960 census will give the details.

Nature provided this foundation, but the house will be gone when the stump is still standing.

What Is a "Bad" House?

. . . AND WHAT makes it sub-standard? We can start with the premise that nobody builds a bad house to begin with, and that what is bad in some places may be acceptable to others.

Cheap, flimsy construction and neglect make a house deteriorate more quickly. Unwillingness of landlord, owner or tenant to make needed repairs, and the careless and outright destructive attitude of some residents hasten the process. Often it is a matter of poverty and ignorance on one side, and lack of concern on the other. A house built as a shack to begin with soon deteriorates with normal use.

The housing needs of the Florida family, urban and rural, resident and migrant, are very similar. Weather-tightness, hot and cold running water and inside flush toilet and bath are considered necessary. In the case of the well-ordered migrant camp the provision of central toilet and bathing facilities is usually satisfactory, since the migrants are accustomed to a certain amount of communal living. Electric lights, window screens, indoor cooking facilities and heating facilities (other than a fireplace) are next in line, but their lack does not necessarily make a house substandard. Rooms equal in number to the members of the family are recommended for privacy and adequacy of space. Painted or otherwise protected interior and exterior surfaces are also suggested; but here again the lack does not put the unit below the standard level.

In essence then, Florida has many thousands of families, white and nonwhite, housed under conditions that do not provide minimum opportunity for clean, wholesome, healthful and comfortable living. Some own their homes and some rent apartments. Many of these families have made it clear that they want better housing, while others seem to show by their careless and destructive attitude that they care little for the quality of their surroundings, nor about the conditions under which their children are growing up. As we said at the beginning—Florida has a housing problem.

It Used to Be

YEARS AGO when tourists first came to Florida, the negro shacks alongside the railroad tracks were considered quaint and novel. Now they are thought of as eyesores. The big problem is: how do we improve all our inferior housing?

To consider this, we must see what the past has to offer. People have been building houses in Florida for hundreds of years. Some of the oldest houses still

The phrase, "Florida Living" has a hollow ring in surroundings like this.

stand. Their sturdy heart pine timbers speak eloquently of the foresight and ability of those early builders. But, some of these old buildings have stood too long. Now chopped up into tiny apartments and flats they constitute the slum areas near the business districts of our largest cities. Fire, the elements and the sledge hammer of civic progress have removed many of these old relics, to make way for business buildings, but too many remain.

The rest of our slum housing consists mostly of cheaply built and uncared for shacks for which rents are often collected weekly. These rents frequently represent a tremendous return on a small investment—often to an absentee owner. Units are allowed, in many instances, to stand until they rot away, are burned or are condemned by housing inspectors or public health officials.

Florida's rapid change from a rural agricultural to an urban industrial state has caused some of the trouble. The low income worker who now labors in the city is often the son of sharecrop-

pers. He has moved from a country cabin to whatever he could find in the city or town. He knows not too much of town ways and therefore does not demand modern facilities. This is particularly true of the migrants, who many people believe fare worst among the ill housed of Florida.

More Recently

SINCE the Second World War, development of new housing has moved forward. The Federal government's Public Housing Administration reports that as of late 1958, there were in Florida 12,989 dwelling units in 28 localities operating as public housing developments. There were also 1335 units under construction with 688 more already allocated. Six more localities had applied for Federal aid to construct low rent developments.

The Federal government provides the money for these developments, either on a direct loan or as guarantor of the mortgage, the money coming from regular investment sources. In either case, the units in the housing developments are usually construct-

Government housing projects like this offer a new way of life for those who have low incomes and need decent housing.

ed for about eight or nine thousand dollars for a medium sized two-bedroom unit, and the mortgage usually runs for forty years.

The Federal law provides that where families are displaced—put out of their homes—so that a public facility such as a highway, public building or public housing development can be built, the local government may borrow up to twelve and a half million dollars and build elsewhere replacement housing, meeting certain standards, on which the government will give a full value mortgage with forty-year terms. If the local government builds low rental housing which is not for displaced families as described, but merely to improve the neighborhood and replace slums, then the terms are thirty years on a sixty per cent mortgage.

Much is being done at the state level, too. Although Florida does not lend money for housing construction, the State Development Commission, the State Industrial Commission, the State Board of Health, the Department of Welfare and other agencies are all keenly aware of the need for slum clearance and replacement, and are acting within their legal authority.

Cities and private construction firms, as well as individuals, have also taken up the new broom in their areas.

A major factor in the urban redevelopment program has been the Daytona Beach test case which went before the state supreme court. In this action the high tribunal found that a city cannot condemn private property, pay for it, and then sell it to private enterprise for reuse in building low rental housing. Land so seized can only be retained by the city and used for stipulated public purposes, said the court.

But private efforts for better housing are in evidence all over the state. Without any use of public funds, 483 dwelling units in Sarasota were replaced or renovated in the past four years. In Gainesville, 100 unsafe buildings have been replaced. Pompano Beach has seen the condemnation of 113 buildings and the renovation of 159. Private investors have built 88 new low rental units, and 36 more are due to rise.

One sober note, often expressed by the State Board of Health, is now echoed by the Florida Planning and Zoning Association. It is the warning that Florida is losing the battle for survival in the housing field by creating more sub-standard housing than is being replaced. By building cheaply on low-lying land without proper drainage or sewage facilities, we are creating public health hazards and setting

the stage for slums of the future.

Belle Glade, Immokalee and other small towns in the winter vegetable growing areas have a particularly serious problem. Much of the sub-standard housing is rented by agricultural migratory labor, and used only a few months of the year. The people who live in the houses are not citizens of the area, and the time honored custom is to regard them as here today, gone tomorrow — and the problem fades with their going. The total rent collected for the use of these dwellings dur-

In this modern migrant camp two dormitory wings are connected by a modern kitchen and mess hall.

ing one season provides little money for improvements. In early 1958 the Collier County Health Department condemned many of these houses. It is encouraging to note that many of the houses have now been repaired and improved and better sanitary facilities have been installed. (The Immokalee story was told in detail in the October, 1958 issue of Health Notes.)

The Leon County Health Department last year conducted in Tallahassee a housing survey which was designed to serve two purposes: (a) to provide necessary information for the city in planning urban renewal projects, and (b) to serve as a pilot study and training ground for sanitarians from other counties in making similar surveys.

Many Aspects

ACCORDING TO ACTION — the American Committee to Improve Our Neighborhoods — and the state's best engineers and planning officials, merely tearing down a few thousand old shacks and replacing them with new shacks is not enough. We would have slums again in fifteen years. ACTION, a private foundation supported by individuals and industry, advocates wide planning of the most detailed kind. They call it Urban Redevelopment, and recommend that whole neighborhoods be replanned and laid out with new streets, schools, churches and other facilities, so as to prevent the redevelopment of slums. They agree that only by replanning and rebuilding the older parts of our cities can we save them from becoming ever-

HOW CAN FLORIDA SOLVE ITS SUBSTANDARD HOUSING PROBLEM?

Community action is the key to solution of the sub-standard housing problem in Florida. To prepare the way for action each community must know the facts about its own conditions. Then it must have a realistic program, geared to the local needs and possibilities. It must have the legal and financial tools to work with. Above all it must have *the will to get the job done.*

Slum clearance and prevention is everybody's business. Landlord and tenant, banker and builder, elected official and voting citizen—all are involved. All should join or support a local Citizens' Housing Association. From the outset the main interest of the Association should be centered on the facts of the housing problem. Fact gathering and public education should remain the Association's primary purposes.

Progress will depend on a realistic approach. Nothing is to be gained by a pretense that related controversial issues do not exist. The necessities must be faced. When all hands realize that there can be no slum clearance that does not infringe on somebody's cherished "rights" or privileges, and when the need for compromise is fully appreciated, then will the way toward improvement show itself.

J. E. Baril, Manager
Planning and Community Services Dept.
Florida Development Commission

• • • • • • • • • • • • • • • • •

increasing eyesores, breeders of crime and disease, and pulling down property values as the years go by.

Of course, not all of the houses even in slum areas should be destroyed. Many could be fixed up so as to bring them up to acceptable standards.

In rural areas, where less than a third of the state's dwelling units are located, the problem is different. Here is the plantation, the farm, the turpentine and pulpwood operation. Here are some of the worst houses in the state, and no multimillion dollar redevelopment plan to help carry the load. Here the owner and landlord will either see the need and act on it, or there will be no improvement.

Migrant housing presents a problem of its own. The U. S. Department of Agriculture says that half of all migrant agricul-

tural labor now working in the United States is of foreign origin, most of the people coming from tropical lands where housing is often flimsy in construction. These people not only do not ask for better housing, but in many instances contribute to its deterioration. They understand little English, and no appeal to their "better selves" has had the desired effect. They live unto themselves and there is no integration

The second floor houses foreign labor, two men to a room. Bathrooms and toilets are in the attached structure. The first floor houses year 'round farm employees. Some talented former migrants have beautifully decorated, nicely furnished and fully equipped apartments.

into the community life while they are spending a few weeks harvesting the crops in a community. Their social and moral standards are regarded by those who would try to help them as frustrating indeed. Such is the picture of many of the foreign born migrants who inhabit the sub-standard housing of the migrant camps of Florida. But many of our native sons do not treat their housing much better.

Nevertheless, because these people are helping to create a public health problem, the Council of State Governments in 1955 suggested that the various states require labor camps to meet sanitary and building code requirements with regard to lighting, ventilation and fire safety.

Late in 1958, the State Board of Health prepared a report from the observations of its field representatives in the migrant areas. Comments from the report: "It appears that progress has been made in condemning or otherwise removing from use camp buildings which are structurally unsafe for housing. . . . Toilet and bathing facilities have been installed in some areas, trash cans and window screens put into place. These will probably be stolen or destroyed as soon as the migrants occupy the camps. . . . The showers will not be used. . . . Housing facilities in most camps were found to be structurally safe, and not too closely crowded, but there are not enough of them. The buildings will be greatly over-crowded with occupants during the coming sea-

New and old apartment houses for migrants stand side by side (left to right), as progress is made.

son (1958-59). Proper streets, parks and playgrounds are virtually non-existent."

Then the report added that progress in improving the actual housing had gone about as far as it could—until the migrants are educated to care for and make proper use of better housing. No landlord, said the report, could be forced to provide any housing at all. If pushed too hard, present landlords could simply tear down their units and leave the rental market, leaving the migrants with no place at all to live.

The field representatives said the idea had been advanced in many places that farmers, growers and other landlords needing migrant labor might be furnished

Those Good Old Days

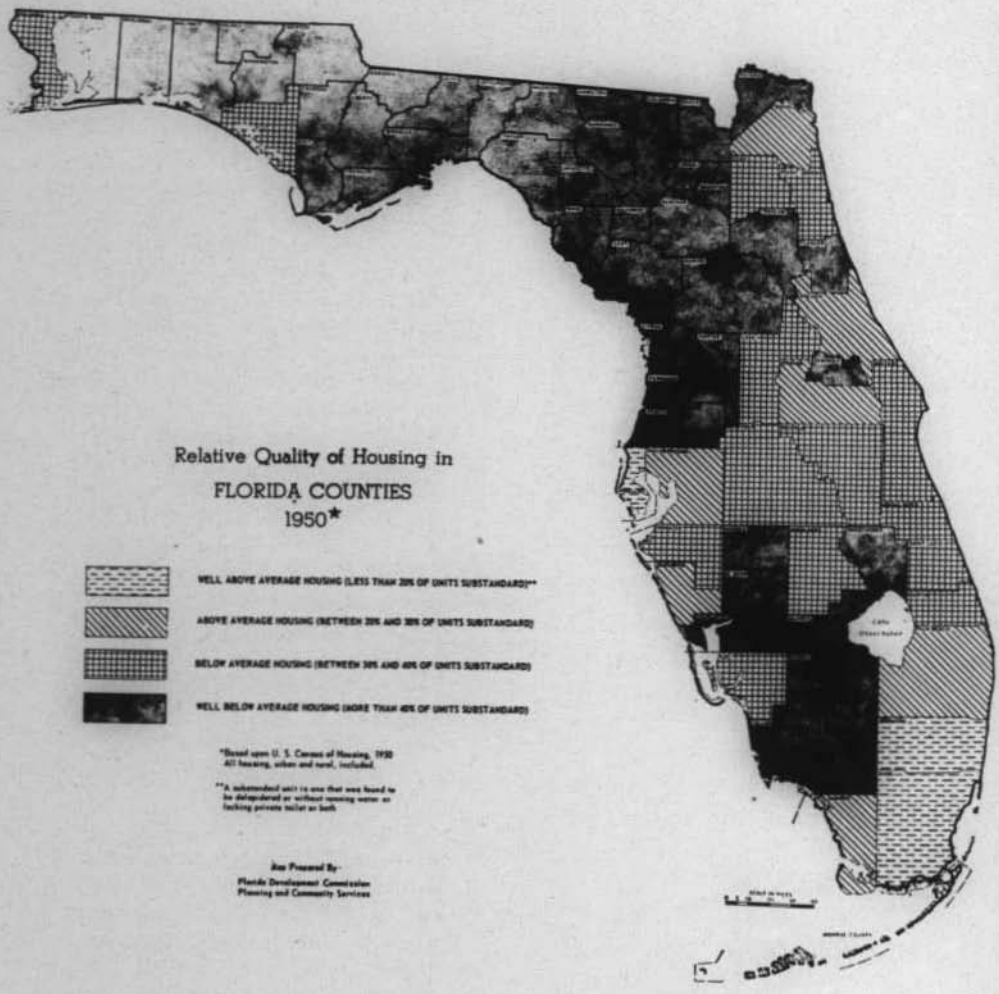
HOUSING in the early days of Florida was a pretty casual thing. The pioneers lived in chickees, the thatched roof platform houses copied from the Indians. But there were exceptions. Some of the ruins still standing tell what they used for building materials.

Coquina, a concrete-like material built up in the sea by the accumulation of billions of bodies of tiny sea creatures, was hard to get at, but was used to build forts and some house foundations. "Tabby", from the Spanish *tapia,* was somewhat similar, and was made by man. They roasted oyster shells and used the lime as a cement to hold together sand and hair. This made a very solid concrete-like material, and foundations made from blocks of tabby are still visible at Fort George Island, New Smyrna Beach and St. Augustine.

Cedar, as well as cypress, was used for the best houses. St. Augustine's "Oldest House" was built of cedar. Many buildings of heart pine, too tough for the termites, are still standing in places like Middleburg, near Jacksonville.

Wattle and daub were used a good bit. Wattle was made of interlaced or woven vines and other fibers. Daub was clay. So wattle and daub meant a wall or roof built up of these two materials each helping to make a more useful material of the other.

Not all of our early residents had outside privies. The best homes had "comfort rooms" containing an early version of the chemical toilet of today's house trailer.


Relative Quality of Housing in
FLORIDA COUNTIES
1950*
WELL ABOVE AVERAGE HOUSING (LESS THAN 20% OF UNITS SUBSTANDARD)**
ABOVE AVERAGE HOUSING (BETWEEN 20% AND 30% OF UNITS SUBSTANDARD)
BELOW AVERAGE HOUSING (BETWEEN 30% AND 40% OF UNITS SUBSTANDARD)
WELL BELOW AVERAGE HOUSING (MORE THAN 40% OF UNITS SUBSTANDARD)
*Based upon U. S. Census of Housing, 1950
All housing, urban and rural, included.
**A substandard unit is one that was found to be dilapidated or without running water or lacking private toilet or bath
Was Prepared By
Florida Development Commission
Planning and Community Services

with plans for new housing built of materials which would be "virtually indestructible." The new housing could then be built a few units at a time, replacing units that must come down, and these new quarters would be rented to persons who indicated a desire to live in them and take care of them.

What Can Be Done?

THIS IS A PROBLEM that all of us will have to help solve. It is not for the Florida State Board of Health to suggest specific plans. We are not in the building business—though we are interested in it—and the results of poor housing. We can suggest, however, a few ideas for you to consider. The solution is not the same for any two situations.

A Federal project may be the best for a given area, whereas a strictly private operation may best serve in a nearby locality. Some places need a complete bulldozing and a start from scratch, while others require only a paved street, sidewalks and some plumbing in the houses. Whatever the need, the important thing to be accomplished first is the crystallizing of community enthusiasm and cooperation. A good housing ordinance is a must, too, to keep the ball rolling when voluntary effort slows down.

▶ *Where no improvements have been made, this is the sight that greets house-hunting migrants. Cardboard cartons are nailed over the holes in the walls. This is better than some. It has two rooms.*

"The maintenance of minimum standards for decent, safe and sanitary housing has long been recognized as a concern of government. The inadequacy of the housing supply has become an increasingly pressing problem in recent years. —The problem has three aspects. New housing is needed to keep up with population growth. Existing housing must be preserved and protected against deterioration. Where slums and blighted areas have developed they must be removed."

From an editorial—October 1958 issue of the American Journal of Public Health.

Few and far between are the owners who have the available cash to tear down dilapidated houses and replace them. Those who have the money are asking seriously—will it pay? Can the new unit be rented for a monthly sum that will pay back the original investment, pay taxes and upkeep, and return a reasonable profit? Many people with experience in this field say no. In that case, should the state or national government subsidize decent housing by paying part of the cost out of our taxes? There surely is no pat answer to that.

Probably one of the basic answers is education of the low income family. This should include adults as well as children. What should this education consist of? A knowledge of what constitutes good basic health habits; that pure water and safe disposal of wastes are the bases of good health; that personal cleanliness and community hygiene are essential for "a good life." Can we teach this? For we must remember that the three basic principles of health education go something like this:

This is typical "old" migrant quarters for a man, wife and two school age children. One room, one window, one door. The two-burner kerosene stove is the only source of heat and does all the cooking. Food and all possessions are stored in the room. A slop jar and kerosene lamp provide toilet and light.

ACTION

"ACTION" is the American Council to Improve Our Neighborhoods. Its name describes its function, and its support comes from industry and the public. Any person interested in better communities can join.

The Florida Committee for ACTION is the state subsidiary of this organization. It was formed, late in 1958, by Brown L. Whatley, realtor of Jacksonville, J. E. Baril of the Florida Development Commission, and other state leaders who felt strongly the need of such a group to carry forward the banner of civic improvement in the field of housing in Florida.

First of all, you must hear the information.

Next, you must believe what you hear.

And last, you must act on it.

And the proof of the pudding, of course, lies in the third item.

We must never forget that for every destructive family, there is probably another who wishes they might live in better surroundings. We have all seen neat little cabins with curtains at the windows and flower pots on the porch. There are units in migrant camps that are dirty and deteriorated on the outside, but are clean and liveable on the inside.

The sub - standard housing problem is unique among public health matters in that its solution does not lie in the hands of the state's health officers and nurses, sanitarians and technicians, and other professional people. They can point out the need, from the standpoint of the effect of bad housing on the people's health. But there they have gone as far as they can. The replacement and repair of poor housing lies in the hands of architects, financiers, builders, city planners and others in government and industry.

What, then, are the benefits to be derived from better housing? To the individual it means better health and morale—and better morale can mean better health, too.

Good plumbing is essential to good personal hygiene — proper waste disposal, more frequent and thorough bathing, a cleaner house. Lack of drafts and proper heat cut down on colds, pneumonia, and other diseases associated with exposure to the elements. Better waste disposal helps eliminate many communicable diseases. Clean surroundings decrease the chance of hookworm and tetanus.

Florida can defeat its slum problem, just as it has defeated yellow fever, typhoid, venereal diseases and other similar problems. And it will be done in much the same way—all working together.

ACTION Leader Says . . .

Aside from considerations of health and social influences, substandard housing is mighty poor business for the community. In the first place, communities that are ill-housed and burdened with blight have little appeal to new business and new industry. Industries seeking favorable locations look closely at housing facilities and conditions with which their employees must live in the community. Housing is invariably one of the prime factors on which decisions are made with respect to industrial and commercial locations.

Secondly, our local business concerns have a tremendous potential in the improvement of the economic position of their community. Such improvement can be effectively brought about by enlightened effort to elevate housing standards. Not only can the community profit from increased payrolls thus brought about, and from the sale of material and equipment needed to clear our slums, rehabilitate and build housing, but even larger benefits are obtained by the resulting elevation of living standards which in turn causes expansion of the general economy of the community. Better housing means higher living standards which generate higher salaries and consequently the ability to buy better food, clothes, medical care and better living for all.

On the other hand, substandard housing and slums generate disease and crime which are costly burdens to business and highly detrimental to the economic welfare and progress of the community. These economic burdens can be replaced by economic assets as rapidly as housing standards are lifted. Builders, merchants, banks, insurance firms, mortgage companies and all professional people, aside from reasons of personal health and safety, even if motivated solely by selfish reasons should be vitally concerned about the need to eliminate bad housing conditions for any segment of their citizens. The American Council To Improve Our Neighborhoods (known as ACTION) is expending great effort throughout the country for this purpose and while considerable has already been accomplished it has really only scratched the surface.

Brown L. Whatley
Realtor and Mortgage Banker
Jacksonville

WOULD YOU LIKE MORE INFORMATION?

If you wish to know more about ACTION, *write to* Florida Committee for ACTION, 100 West Bay Street, Jacksonville, Fla.

For copies of the sample Housing Ordinance, or copies of the Housing Survey Forms, write to State Health Officer, Florida State Board of Health, P. O. Box 210, Jacksonville, Florida.

FLORIDA STATE BOARD OF HEALTH

1217 Pearl Street or P. O. Box 210
JACKSONVILLE, FLORIDA

HON. LEROY COLLINS
Governor of Florida

BOARD MEMBERS

Charles J. Collins, M.D., President
Orlando

T. M. Cumbie, Ph.G., Vice-President
Quincy

Sullivan G. Bedell, M.D., Member
Jacksonville

John D. Milton, M.D., Member
Miami

F. P. Meyer, D.D.S., Member
St. Petersburg

WILSON T. SOWDER, M.D., M.P.H., State Health Officer
Albert V. Hardy, M.D., Dr. P.H., Assistant State Health Officer

Division of Health Information
Elizabeth Reed, R.N., B.S.

Librarian
Barbara Beckner, B.A., M.S.L.S.

Bureau of Local Health Services
Wade N. Stephens, M.D., M.P.H.

Division of Public Health Nursing
Ruth E. Mettinger, R.N.

Division of Sanitation
A. W. Morrison, Jr.

Nutrition Services
Mary B. Deaver

Bureau of Finance and Accounts
Fred B. Ragland, B.S.

Bureau of Vital Statistics
Everett H. Williams, Jr., M.S.

Bureau of Dental Health
Floyd H. DeCamp, D.D.S.

Bureau of Narcotics
Frank S. Castor, Ph.G.

Bureau of Laboratories
Nathan J. Schneider, Ph.D.,

Bureau of Mental Health
Wayne Yeager, M.D., M.P.H.

Bureau of Entomology
John A. Mulrennan, B.S.A.

Bureau of Sanitary Engineering
David B. Lee, M.S., Eng.
Sidney A Berkowitz, M.S. Eng.
Ass't. Director

Division of Water Supply
John B. Miller, M.P.H.

Division of Waste Water
Ralph H. Baker, Jr., M.S., San. Eng.

Bureau of Preventable Diseases
C. M. Sharp, M.D.
Epidemiologist
James O. Bond, M.D., M.P.H.

Division of Venereal Disease Control

Division of Tuberculosis Control

Division of Veterinary Public Health
James E. Scatterday, D.V.M., M.P.H.

Division of Industrial Hygiene
J. R. Reid, M.D.

Bureau of Special Health Services
L. L. Parks, M.D., M.P.H.

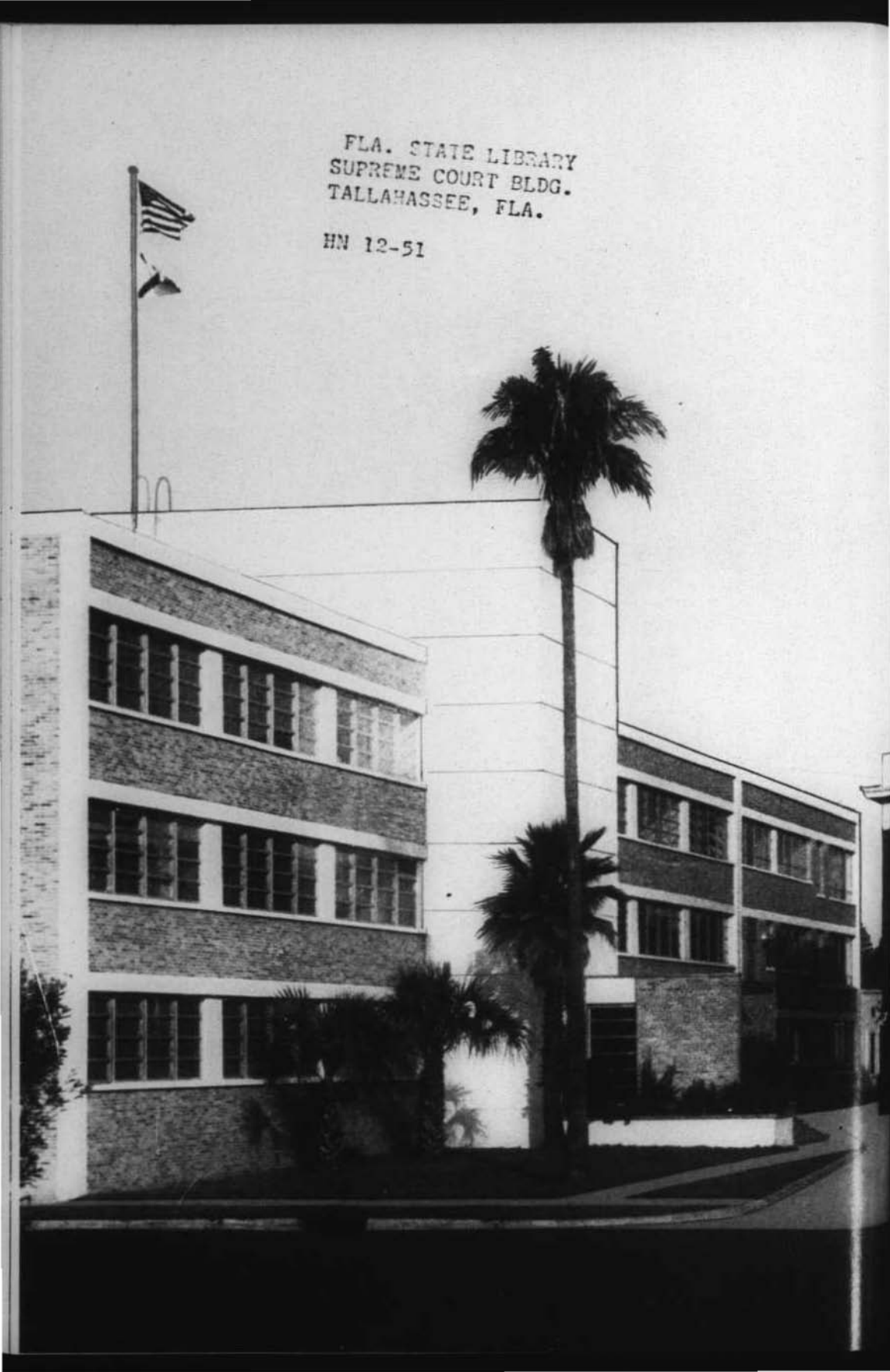
Division of Hospitals & Nursing Homes
John L. Enyart, M.D., A.B.

Division of Chronic Diseases
Heart, Cancer and Diabetes

Bureau of Maternal and Child Health
Simon D. Doff, M.D., M.P.H.
E. L. Flemming, Ed.D.
Ass't. Director

All Counties in Florida have organized county health departments, except St. Johns County

FLORIDA HEALTH NOTES published by Florida State Board of Health since 1892



Florida HEALTH NOTES

VOLUME 51 - NO. 4
APRIL 1959

Public Health Research


IN THE LAB
IN THE CLINIC
IN THE FI

PUBLIC HEALTH RESEARCH

Progress through research is an outstanding characteristic of our times. And public health is no different from the oil business or the manufacture of fabrics. You have to do research or you fall behind. And that's not good, especially when you are dealing with human lives and happiness.

The communicable diseases such as diphtheria, typhoid and smallpox have declined as a first cause of death. Today we need to know more about such health problems as the chronic diseases (heart, cancer, diabetes, arthritis), mental health, occupational diseases, accident prevention and health problems of the aged. Environmental health problems, once limited to food, water and sewage now extend to air pollution, insect control, housing and radiation hazards.

The public's mental picture of professional men and women in white smocks working long hours in laboratories is only partially accurate. Medical research, in general, is conducted in the laboratory, in the clinic and in the field. In the laboratory attention is centered on substances and cells; in the clinic on the individual, and in the field, the focus is on the community.

Doctors, bacteriologists, social scientists, statisticians, chemists, biologists, public health nurses—these are just a few of the people who are concerned in public health research. Therefore, all of us must do whatever we can to recruit and train scientists, particularly in the field of medicine, so that they can fill these important posts.

FLORIDA HEALTH NOTES

Published monthly except July and August on the 5th of the month by the Florida State Board of Health. Publication office, Jacksonville, Fla., headquarters of the State Board of Health. Entered as second class matter, Oct. 27, 1921, at post office, Jacksonville, Fla., Act of Aug. 24, 1912. It is intended primarily for individuals and institutions with an interest in the state health program, public and private. Permission is given to quote any story. Clipping of quotations or excerpts would be appreciated.

The fruits of medical research will be the further prolongation of life and relief of suffering. The Florida State Board of Health and the larger County Health Departments have accepted research as an essential part of their activities. It is not enough to sit back and point with pride to the accomplishments of the past. If smallpox has been conquered, what about infectious hepatitis? If we are on our way to controlling polio, what about children born with congenital defects? If we have learned more about the use of antibiotics, such as penicillin, what are we doing to prevent mental illness?

This issue of HEALTH NOTES tells of research projects under way (or just completed) in Florida at the present time, which are sponsored by the State Board of Health, either alone, or in cooperation with other organizations. Some of them are too technical to write about at any length in a publication of this kind. Those of you who would like more information concerning these research projects (which are all treated briefly) may drop a note to the editor of HEALTH NOTES, who will put you in touch with the expert in charge of the particular project in which you have a special interest.

Volusia County—School Health Demonstration Project

OBJECTIVE: To demonstrate how school and health department team work is effective in mental health case-finding among students.

This is done through the reporting of "mental health" suspects by teachers, the use of public health nurses to work with teachers and parents through home visits, and to effectively use the services in the community for physical and psychological examination of children. School case conferences, in which health and education personnel jointly study particular children and make recommendations to the parents, will be used.

SPONSORS: Florida State Board of Health, Volusia County Health Department and U. S. Public Health Service.

Study of Hospital Discharges Among Civilian Population of Monroe County

OBJECTIVE: To tabulate the illnesses which caused people to be hospitalized in Monroe County during 1957.

With this information, the Monroe County Health Department can better plan its programs, the hospitals can plan for better use of their facilities, and the practicing physicians will have a better knowledge of the incidence of various diseases.

SPONSORS: Florida State Board of Health and Monroe County Health Department.

Congenital Heart Disease at Florida School for Deaf and Blind

OBJECTIVE: To try and find out if there is any relationship between congenital (born with) heart disease and abnormalities of other parts of the body, such as deafness and blindness; a comparison of the prevalence of heart disease in deaf and blind children with heart disease found in "normal" children, and to emphasize the frequency of occurrence of congenital heart disease among children who are deaf or blind.

There are presently no studies available which have confirmed or denied the fact that children with congenital heart disease often have other abnormalities. A by-product of the main study has to do with the occurrence of abnormal electrocardiograms among children in the School who show no evidence of heart disease on physical examination.

SPONSORS: Florida State Board of Health, Florida School for Deaf and Blind, St. Augustine; School of Aviation Medicine, U. S. Naval Air Station, Pensacola.

Project for the Improvement of Maternal and Child Health Services for Agricultural Migrants

OBJECTIVE: To determine how migrant mothers and children (of migrant agricultural workers' families) can receive better health services, and the evaluation of these services as they relate to the social characteristics of the Negro migrant family.

One of the outcomes of this project has been the publication of a booklet, "They Follow the Sun" by Earl Lomon Koos, Ph.D., (social scientist), which has been read with interest throughout the country.

Case Study: This case concerns a fairly typical migrant Negro family—Jack and Norene B. and their seven living children whose ages range from 13 months to 11 years. Two children are deceased.

The family of nine, living in one room, was invited by the public health nurse to attend the Well-Family Clinic held at the Belle Glade Health Center. The mother and children attended the clinic where a general practitioner and a pediatrician examined them.

The physicians' findings revealed elevated blood pressure in the mother and intestinal parasites in the children. Immediate hospitalization was recommended for three-year old Rosie. A preliminary diagnosis on her was later confirmed—*Kwashiorkor*—a protein deficiency disease rarely found in the U. S.

Rosie's three-month hospital stay (which included a skin graft) was under the supervision of the admitting pediatrician.

Each member of the Migrant Project Staff worked with this family in terms of each discipline represented, (medicine, nursing, sanitation, health education, nutrition, social work). Work continued with this family of migrant farm workers, and marked progress is observed. Attitudes have been changed and Rosie is doing fine.

SPONSORS: Florida State Board of Health, Palm Beach County Health Department and U. S. Children's Bureau.

An Evaluation of Drug Therapy, Combined with Intensive Home Follow-up, in Hypertension

OBJECTIVE: Certain patients with essential hypertension (high blood pressure) attending the outpatient department of the Duval Medical Center of Jacksonville, are to be studied for five years.

These patients will be offered public health nursing and medical social follow-up in order to provide them with the best of long-term care. New drugs which are used to treat high blood pressure will be evaluated during this time.

SPONSORS: Florida State Board of Health, Duval Medical Center and U. S. Public Health Service.

Rabies in Bats and Other Wildlife and Their Relationship

OBJECTIVE: To study rabies in wild life, including the bat, in order to find out if certain animals can transmit rabies to domestic animals; to develop a more rapid and better test for rabies virus in animal brains and salivary glands.

In 1954 a bat attacked a child in Hillsborough County. Suspecting that there was something odd in a bat coming into a populated area, an adult who witnessed the attack took the animal to a branch public health laboratory. Tests showed that this bat did have rabies. Since that time, 5500 bats have been killed and examined for rabies, with 45 bats being found rabid. Of significance was the high rate of infection found among apparently sick bats which were submitted to the laboratory for rabies diagnosis. These bats had either been involved in human bites or were found lying on the ground near human habitation. No evidence of bats giving rabies to other animals or man was obtained.

The above project is still trying to find out whether or not insect-eating bats serve to transmit rabies to other wild animals and domestic animals; and in areas where these bats are rare or absent, whether or not raccoons transmit rabies.

SPONSORS: Florida State Board of Health and U. S. Public Health Service.

Diabetes Detection Among Relatives of Diabetics

OBJECTIVE: To locate the unknown diabetic patients and to place them under treatment early thereby preventing the propagation of this disease.

This patient-finding program is being done by conducting surveys in various counties throughout the state. It has been found that the testing of immediate blood relatives of the known diabetics, and relatives of suspected and newly diagnosed diabetics, that more early cases can be discovered than by testing the general population of the state. Seven counties are participating in the testing of the relatives of the indigent diabetics. So far 490 relatives have been tested.

Many relatives of diabetics see no need to be tested even though it is fairly well established in medical circles that diabetes has a tendency to be a family disease; that is, that relatives of diabetics are found to have a higher rate of the disease than the general population. It has been estimated that there are at least 20,000 unknown diabetics in Florida today.

SPONSOR: Florida State Board of Health.

Aerosol Bronchial Lavage in Tuberculosis

OBJECTIVE: To compare the value of 24-hour sputum specimens, stomach washings and tracheal (windpipe) washings by an aerosol technique in the diagnosis of pulmonary (lung) tuberculosis in patients who cannot expectorate.

Some patients seem unable to raise much sputum at times. Hence, it may be necessary to resort to collecting a specimen of stomach washings, which can be an unpleasant experience to the patient, and which requires the services of highly skilled medical personnel. This project is concerned with trying to find out if tuberculosis germs can be found as readily in tracheal washings which, in contrast to the stomach washing specimen, is inexpensive to collect and which causes virtually no discomfort to the patient.

SPONSORS: Florida State Board of Health, the University of Miami School of Medicine and National Institutes of Health.

A Coordinated Mental Illness Program

OBJECTIVE: In the case of the mentally ill: to study the needs for services in Hillsborough County; to coordinate and to integrate existing services; to develop new services and to expand existing services; to incorporate research techniques and procedures in any program which is planned and to make knowledge gained available to other communities.

Patients coming home from the state mental hospitals, often on trial visits, need the coordinated services of many health and

welfare agencies, including courts of law and the medical profession.

Through consultation service provided by Florida State Hospital, State Vocational Rehabilitation Service, Florida State University, Florida State Board of Health and U. S. Public Health Service, this plan hopes to establish a research and demonstration project to be known as the Mental Health Resource Council of Hillsborough County.

Case Study: Mr. D., white male, age: 46; married and has five minor children. Prior to commitment to the State Hospital for the mentally ill, the patient had a great deal of difficulty in finding employment. Due to adversities, both financial and personal, he became acutely disturbed. He adjusted well in the hospital. It was recognized that the patient had many assets and that the family was a close one.

Mr. D.'s biggest problem was that of finding steady employment from which he could derive a living wage and satisfaction. While hospitalized, he was referred to the Vocational Rehabilitation Counselor. The hospital requested the help of the Mental Health Resource Council to assist in making arrangements for Mr. D. to make a "trial visit" at home. An investigation of the home situation was made by a nurse from the County Health Department. The wife was being seen by a social worker from a family agency.

With encouragement from the various agencies, the wife came to the hospital for the patient and took him home. With the help of Vocational Rehabilitation he found a job which he liked and it gave him the opportunity to work regularly, earn a living wage, and derive some very real personal satisfactions. The trial visit year was successful with the consistent help of community agencies and facilities. The patient's civil rights have been restored.

SPONSORS: Mental Health Resource Council of Hillsborough County, National Institute of Mental Health and Hillsborough County Health Department.

Public Health Program for the Aged

OBJECTIVE: The major aim of this proposed research (in St. Petersburg) in public health methods is to plan, initiate,

evaluate and describe a public health program to satisfy better the health needs of the aged.

Services to the young have been emphasized in the growth of public health. Scientific programs to meet their needs have been adopted. Until recently, there has been a relative disregard of the aged. Now it is widely acknowledged that they too have distinctive health needs. However, there is no special public health program to satisfy these. It is the purpose of this proposed study to use a research approach in developing and evaluating a much needed new public health program.

SPONSORS: Florida State Board of Health, Pinellas County Health Department and National Institutes of Health.

A Study of Inmates of Nursing Homes in Dade County

OBJECTIVE: To learn what types of medical and mental conditions occur most frequently among people in nursing homes in Dade County; to study their social and economic background to learn if there is any particular pattern; to evaluate the nursing problems presented by these persons; and to better understand these person, and how preventive or rehabilitative measures might decrease the present number of patients in these homes.

Dade County (Miami) has many nursing homes. Many people come from other parts of the United States to enter these homes. Therefore, this is the major program which is now being studied by the Department of Research and Program Development of the Dade County Health Department.

SPONSORS: Florida State Board of Health, Dade County Health Department, National Foundation and Medical Students of the University of Miami.

A Study of Patients Admitted to Nursing Homes in Dade County

OBJECTIVE: To determine the medical and nursing requirements of these individuals and whether they are properly

met in nursing homes; the costs of these services to the community and other individuals; the ultimate satisfaction of these patients; and to investigate methods of getting more aid to those people requiring such assistance.

SPONSORS: Florida State Board of Health, Dade County Health Department, National Foundation, Medical Students of the University of Miami and the U. S. Public Health Service.

A Study of Persons Living in Retirement Hotels in Dade County

OBJECTIVE: To learn how retirement hotels solve the problems of the aged and the aging; the actual costs of living in these hotels; and to determine if this form of living is satisfactory to the persons residing therein.

Case Study: Sam T. is a 72 year old retired electrician. Born in Russia, he emigrated to the U. S. in 1902. Widower with five children. Came to Florida two years ago because of climate. Now living in retirement hotel on Miami Beach.

Monthly living expenses are $160. He receives $70 a month from Social Security and the difference is made up by his children.

He is perfectly content with his accommodations and plans to remain in the hotel permanently.

SPONSORS: Florida State Board of Health, Dade County Health Department, Medical Students of the University of Miami and National Foundation.

Causes Underlying Syphilis Deaths in Dade County

OBJECTIVE: To learn why people still die of syphilis in Dade County even though there is a known treatment which is available to all persons either through private physicians or health department clinics.

SPONSORS: Florida State Board of Health, Dade County Health Department, National Foundation and Medical students of the University of Miami.

A Study of Chronic Gonorrhea Repeaters

OBJECTIVE: To learn why certain individuals acquire gonorrhea five or more times.

Case Study: James R. 25 year old Negro construction worker. History of gonorrhea infection on five different occasions. Went through fourth grade. Lives with relatives. Few outside contacts, except for various women. He appears to understand how gonorrhea is contracted, and how he may infect others—but to no avail.

SPONSORS: Florida State Board of Health, Dade County Health Department and U. S. Public Health Service.

Epidemiology of Tetanus in Dade County

OBJECTIVE: To try and find out why there is a high incidence and death rate from tetanus (lockjaw) in the Dade County area; and to learn what population groups are specifically liable to acquire tetanus.

One hundred and seventy-four cases of tetanus were recorded in Dade County from 1942 to 1957. The results of this study should assist the Dade County Health Department in knowing which groups of the population should be specifically educated about the value of immunization against tetanus.

SPONSORS: Florida State Board of Health, Dade County Health Department, National Foundation and Medical Students of the University of Miami.

A Survey of the Causes of Neonatal Deaths

OBJECTIVE: To seek clues to the high neonatal (between birth and one month) death rates presently existing in Dade County and to try and find ways to prevent these deaths.

Approximately 200 children died in Dade County before they were a month old, in the first six months of 1958. Efforts will be made to see why these children died and if anything

can be done in the future to prevent such deaths. This is one of the major public health problems in Dade County and therefore, will receive high priority in future research studies.

SPONSORS: Florida State Board of Health, Dade County Health Department, National Foundation and Medical Students of the University of Miami.

An Epidemiologic Survey of Individuals with Cerebro-Vascular Accidents and their Rehabilitation

OBJECTIVE: This project is concerned with studying a group of patients hospitalized in Jackson Memorial Hospital in Miami (during the first six months of 1957) after they had suffered a stroke. The following questions will be asked: What kind of persons were afflicted? Was there any particular group or age? What was the cause of the stroke? How many survived? How many were rehabilitated? How many were able to return to community life?

SPONSORS: Florida State Board of Health, Dade County Health Department, the National Foundation and Medical Students of the University of Miami.

A Study of the Effects of Rehabilitation on Individuals with Fractures of the Hip

OBJECTIVE: To study individuals sustaining fractures of the hip treated at Jackson Memorial Hospital, Miami, during the first six months of 1957. To find out if there were common causes for fracture of the hip; if these people came from any particular area or class of society; to evaluate the treatment and rehabilitation of these people, and to try to find out how to prevent death and disability resulting from fractures of the hip.

SPONSORS: Florida State Board of Health, Dade County Health Department, National Foundation, and Medical Students of the University of Miami.

Cytomegalic Disease and Toxoplasmosis in Mentally Retarded Children Living at Home

OBJECTIVE: To make blood tests on a group of mentally retarded children and on a control group of normal children to see if there are any differences in certain blood reactions in the two groups.

SPONSORS: Florida State Board of Health and Dade County Health Department.

Developmental Evaluation Clinic (for Mentally Retarded Children)

OBJECTIVE: To study mentally retarded children and to help the parents of these children make plans for their education and future employment. While studying these children it is hoped that new methods of diagnosis and treatment will be developed.

As about 3000 mentally retarded children are born in Florida each year, the problem of early diagnosis and life planning is of vital concern to all.

SPONSORS: Florida State Board of Health, Dade County Health Department, and the U. S. Children's Bureau.

Research in Public Health Nursing

OBJECTIVE: To obtain work measurement data; to obtain authoritative information about things a public health nurse is called upon to do, as well as those things for which she is specifically needed; to determine priorities in public health nursing services.

A pilot survey was set up and put into operation in Pinellas County in 1957. The results of the survey show (to date) that the largest portion of time (26.6 per cent) is spent in general work, such as working on records in office, or some particular duty which cannot be charged to a specific service.

Next highest time was recorded for the school health program (23.7 per cent), with travel 10.3 per cent and health card applicants 5.4 per cent.

It has also been shown that the Visiting Nurses are doing a great deal of work in the area of chronic diseases and the public health nurses are called on much less than formerly for patients with these complaints.

SPONSORS: Florida State Board of Health and Pinellas County Health Department.

A Three-Year Follow-up Study of Psychotic Children

OBJECTIVE: To determine how many of the 105 psychotic children for whom residential treatment was prescribed in 1955 still need residential care. Nurses, private practitioners, mental health workers, clinics and other agencies are being asked to fill out a questionnaire on each child known to them indicating what services the child has received since 1955, what his present adjustment is, and what his present needs are. This information should be helpful in planning care for seriously disturbed and psychotic children.

SPONSOR: Florida State Board of Health.

An Analysis of Referrals to Child Guidance and Community Mental Health Clinics in Florida

OBJECTIVE: To determine what types of cases are most appropriate for such clinics and determine if any modifications of present admission policies seem feasible. Over 5000 cases were analyzed with respect to improvement or unimprovement on discharge; who referred the case, diagnostic category, number of interviews, etc.

Several significant relationships have materialized thus far, particularly in the differences between various referral sources.

SPONSOR: Florida State Board of Health.

ENTOMOLOGICAL RESEARCH CENTER

On the Indian River shore near Vero Beach the Bureau of Entomology maintains an Entomological Research Center which accounts for the balance of the State Board of Health's research projects here listed. The same legislature (1953) which launched the state program for permanent mosquito control provided for the building and maintenance of a research center to be devoted to the biology and control of biting insects, chiefly mosquitoes, sand flies, and yellow flies. The mosquito control districts of Florida who were to receive the financial aid, unanimously supported this provision for research because they knew from years of experience that money would make for *more* control, but only research could make for *better* control. The Entomological Research Center was dedicated in April of 1956. Staffing and equipping was slow, but the Center is now a going concern, already guiding the mosquito control programs of Florida in a sure manner towards proven efficacy and efficiency. The Center is attracting considerable attention because of its unique wedding of immediately-needed and applied research with fundamental biological research into the habits of these biting insects and their special environmental needs. The laboratory facilities and the scientific staff are of a caliber which has enabled the State Board of Health to secure many federal research grants to supplement its own budget for this institution. The twenty research projects which follow indicate the nature of the problems being studied:

Studies of the Life History and Control of Biting Flies

OBJECTIVE: To learn more about insects involved in public health and comfort and about the places where they are produced or live, so that these insects can be controlled more efficiently, and so that in controlling them, no harm is done to other public interests in land, water, or air.

SPONSOR: Florida State Board of Health.

To Determine Where Salt-Marsh Mosquitoes Breed and How to Control Them in Citrus County

OBJECTIVE: To learn where and how salt-marsh mosquitoes breed in the vast salt-marshes of the Homosassa and Crystal Rivers.

If this could be learned, much of this information could be used in other regions of the upper Gulf Coast. This research will try to find effective and economic methods of reducing the mosquito population.

SPONSORS: Florida State Board of Health and Citrus County Mosquito Control District.

To Determine the Best and Most Economical Methods of Impounding Water for Salt-Marsh Mosquito Control

OBJECTIVE: To learn the best management method of salt-marsh impoundments (marsh flooded behind dikes) to control mosquito breeding while conserving natural resources.

Studies have already demonstrated that salt-marsh mosquitoes will not lay their eggs on a flooded marsh, and the flooding of these areas is an effective control method. Some work has also been done on the efficiency of various diking and flooding methods. There remains to be determined the seasonal requirements for flooding, the best way to utilize natural feeders on mosquito larvae, and the most effective management for conservation purposes (commercial and game fish).

SPONSORS: Florida State Board of Health and Indian River Mosquito Control District.

The Effects That Filling and Ditching Have on Sand Fly Production

OBJECTIVE: To determine the effect, if any, that normal mosquito source-reduction methods have on the breeding of salt-marsh sand flies.

Sand fly larval (early stage of fly) sampling is being done on hydraulically-filled salt-marshes, on impounded salt-marshes,

and on undisturbed, natural salt-marshes. These studies can lead to a better knowledge of how to control these pests.

SPONSORS: Florida State Board of Health and Indian River Mosquito Control District.

To Find Better Chemicals for Killing Mosquito Wigglers

OBJECTIVE: To find effective, safe, and economical chemical insecticides for use against mosquito larvae (early stage of insect). Because of the ever-increasing problem of mosquito resistance to organic chemical insecticides (such as DDT), paris green and other inorganic chemicals are being investigated as larvicides with the hope they may be a solution to this critical problem. Paris green pellets have already been developed. This discovery holds great promise.

SPONSOR: Florida State Board of Health.

To Find Better Chemicals and Methods of Controlling Adult Mosquitoes

OBJECTIVE: To find effective, safe, and economical formulas and methods for chemical control of adult mosquitoes by application from ground or air. Tests are based on kill of mosquitoes in wire cages set out in rows at increasing distances from the dispensing machine (such as sprayer or fogger on truck, airplane, etc.) so that both killing power and swath width are determined. Insecticides already screened and found safe for application in populated areas are formulated and tested. The tests also go into questions of how the weather affects the operation, best time of night or day to do such work, best settings on machines, etc.

SPONSORS: Florida State Board of Health, Indian River Mosquito Control District, and St. Lucie Mosquito Control District.

Horsefly Studies at Vero Beach

OBJECTIVE: To survey the horseflies occurring in the Vero Beach area; to establish the best raising methods; and to

study the behavior of horseflies as opportunities presented themselves.

The over-all objective was to obtain for future use of Entomological Research Center personnel a guide to the best techniques and best available local study areas for horsefly research.

SPONSOR: Florida State Board of Health.

Mosquito Distribution Studies

OBJECTIVE: To determine the distribution, abundance and seasonal occurence of Florida mosquitoes.

This is an extensive study of ten years of light-trapping of mosquitoes in all parts of Florida.

SPONSOR: Florida State Board of Health.

Mosquito Dispersal Studies

OBJECTIVE: To mark, release, and recover mosquitoes, in order to learn the pattern of their spread from breeding areas. The experiments call for "marking" the mosquitoes by making them radioactive, letting them disperse freely, and then carrying on an intensive collecting program for miles around and running all collections through Geiger Counters to "recover" the marked ones. Thus, it has been found that salt-marsh mosquitoes can disperse at least up to 25 miles from the point of origin and that some broods spread farther than others. Effect of wind, density of breeding, etc., are also studied. How far they go and how fast are determined and then serve as guides to other research projects investigating flight behavior.

SPONSOR: Florida State Board of Health.

To Learn the Best Method of Sampling the Mosquito Population

OBJECTIVE: To improve techniques for "sampling" mosquito populations and to better understand techniques now in

use. Many sampling methods are used in evaluating mosquito control, in establishing the need for control, and in a host of different research projects. This project is aimed at finding out which sampling methods are best not only in measuring mosquito populations (as in control evaluation) but in measuring the part of those populations ready to bite, the part ready to lay eggs, etc., and also how "selective" those various sampling methods may be for certain species, male or female, old or young, etc.

SPONSOR: Florida State Board of Health.

Mosquito Screen Tests

OBJECTIVE: To compare the effectiveness of louver screening with conventional screening against mosquitoes.

These tests are based on the escape of mosquitoes in a cage through different types of screens toward an attractant, such as a light. The idea is to find out which types of screens are most effective in screening mosquitoes out of buildings.

SPONSOR: Florida State Board of Health.

Salt-Marsh Sand Fly Studies

OBJECTIVE: To establish the major features of the life-cycle, ecology (environment), and behavior of *Culicoides furens* and other salt-marsh sand flies.

This research project comprises a study of the habits and living places of salt-marsh sand flies.

SPONSOR: Florida State Board of Health.

Mosquito Nutrition Studies

OBJECTIVE: To determine the food requirements of mosquitoes and how these are satisfied in nature.

The blood meal (taken from man) for mosquitoes is presently under study. Also being considered is whether or not

a blood meal stimulates hormone production in the mosquitoes, which in turn initiates egg development—and more mosquitoes.

The little understood but apparently very important roles of larval (wiggletail) food and adult nectar-feeding are being investigated for effects on blood-taking. This could lead to phenomenal methods of control.

SPONSOR: Florida State Board of Health.

Mosquito Olfaction Studies

OBJECTIVE: To determine the response of mosquitoes to air-borne stimuli, especially to determine under what circumstances and from what distance they will come to a blooded animal (such as man or horse) or a sweet substance (such as sugar).

The initial stage of this project will be to determine when female mosquitoes, in different physiological states (such as newly emerged, mated or unmated, etc.) will take a blood meal or a sugar meal, and what influence, if any, the two types of feeding have on one another. Such studies could form the basis for destruction of mosquitoes by poison baits or by electronic and other type of traps and devices.

SPONSOR: Florida State Board of Health.

Studies on Mosquito Eggs and Hatching

OBJECTIVE: To determine how mosquito eggs hatch in the laboratory and in the field and to determine how long mosquito eggs can live in a natural breeding place.

SPONSOR: Florida State Board of Health.

Studies on Aging and Physiological State in Mosquitoes

OBJECTIVE: To develop techniques for determining the age and physiological state of mosquitoes and to make clear the aging process. This could give clues to the aging in man.

Almost all field studies of mosquitoes (environment, dispersal, resting habits, insecticidal effectiveness) will be assisted when it becomes possible to classify all mosquitoes observed or caught according to age and physical stage.

SPONSOR: Florida State Board of Health.

Studies of Associative Behavior in Mosquitoes

OBJECTIVE: Explanation of joint behavior in mosquitoes as indicated by male "swarming," mating, and the coming together of larvae—immature mosquitoes.

SPONSORS: Florida State Board of Health and U. S. Public Health Service.

Study of Migratory Behavior in Mosquitoes

OBJECTIVE: Explanation of mosquitoes' migratory habits, when, in a mosquito's life, it migrates, and factors in the environment which cause it to migrate (such as weather, temperature and light.)

SPONSORS: Florida State Board of Health and U. S. Public Health Service.

Biology of Brackish-Water Larvivorous Fishes

OBJECTIVE: To determine which species of fish will eat salt-marsh mosquitoes; the undesirable effects of insecticides and stream pollution on these fish; and to learn more about the life histories of these particular fish.

SPONSORS: Florida State Board of Health and U. S. Public Health Service.

Midge Research Project

OBJECTIVE: To learn how to control "blind mosquitoes" in the Winter Haven area.

There are over 100 species of these insects that live in the waters of lakes and in the immature stages feed on microscopic plants and animals. In the adult stage they are terrific pests, covering homes and marring the paint. Studies are being conducted to learn how to control these insects. Over 30 different insecticides have been tested without a promising one being found. Unless these insects can be controlled, expensive homes and lake front property will be greatly reduced in value and living made more unbearable each year, due to the increased fertilization of lakes, which produces more food for the "blind mosquitoes."

SPONSORS: Florida State Board of Health and the Polk County Arthropod Control Program.

Deaths from Acute Rheumatic Fever under Age 5

OBJECTIVE: A study of death records and autopsy reports illustrates errors in clinical diagnoses among children under five suspected of having rheumatic fever.

This study has recently been completed.

SPONSOR: Florida State Board of Health.

Stroke

OBJECTIVE: A study of 100 consecutive cases of stroke seen in the Emergency Room at Duval Medical Center in Jacksonville. Each case will be intensively studied from the medical and social aspects.

SPONSORS: Florida State Board of Health and Duval Medical Center.

Large Scale Production of Trypsinized Monkey Kidney Cells

OBJECTIVE: Many research laboratories are receiving weekly shipments of monkey kidney tissue cells for use in

polio and other viral studies. By this means, laboratories which do not have monkey animal facilities can have available living tissue cells which are necessary for virus work. The procedure for preparing the monkey kidney cells and for preserving them was worked out by the National Foundation in cooperation with the Florida State Board of Health.

SPONSORS: Florida State Board of Health and National Foundation.

Development and Evaluation of Rapid Laboratory Test Procedures

(a) OBJECTIVE: To compare the usefulness of currently available culture media for the laboratory diagnosis of *M. tuberculosis.*

The diagnosis of tuberculosis by the microscopic examination of smears prepared from sputum specimens is often not sensitive enough. An additional test procedure—culture diagnosis is being used, also. Over 27,000 specimens have been examined for tuberculosis, using several different nutritional formulae. The culture test procedure has been shown to be more satisfactory, especially for examining specimens of early suspect cases or to follow patients while on antituberculosis drug treatment.

(b) OBJECTIVE: A Bacteriological Study of Atypical Acid-Fast Organisms.

Within the last few years bacteriologists have "grown out" certain germs from persons suspected of having tuberculosis which are very similar to the real tubercle bacillus when grown in the test tubes but can not be "atypical" because they look different from the tubercule bacillus when grown in the test tubes but could not be distinguished when stained smears are examined under the microscope. Both typical and atypical organisms are acid-fast when stained. However, in culture, these atypical organisms are not susceptible to the usual antituberculosis drugs nor do they react in the same way to certain other tests. Studies are now under way to determine the importance of these related germs to the welfare of man.

(c) OBJECTIVE: To Evaluate a Rapid Procedure for Diagnosing Rabies in Animals Using Fluorescent Antibody Procedure.

It appears possible to diagnose rabies in brain tissue of suspected animals by the fluorescent antibody procedure within a few hours as compared to animal inoculation of mice, which test may require as long as 30 days. The laboratory is now examining animal specimens by both procedures to determine the relative dependability of the new test.

(d) OBJECTIVE: Bacteriological Study of Resected Lung Tissue.

Thorough studies are being made to determine the characteristics of lesions in lung tissue removed from tuberculosis patients at surgery. This is done by attempting to grow the tubercule organism if present in the lesion. These are then identified and tested for their susceptibility to various drugs, the results of which are then compared with tubercule organisms cultured previously from the same patient. The lesion is studied further by making stained slides with the tissue and examining the cells under the microscope.

(e) OBJECTIVE: A Study of the Neutral Red Test for the Determination of Virulence of Mycobacteria in Vitro.

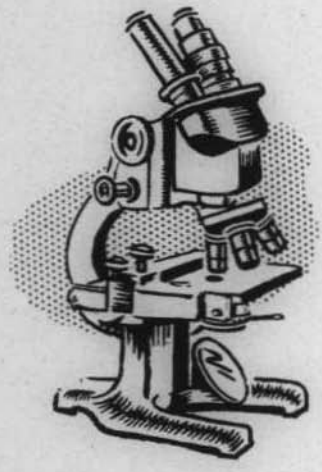
A new and more rapid test for the "invasiveness" of tuberculosis organisms has been devised by others and is now being compared with the guinea pig inoculation test. The new procedure requires a few minutes to perform while the latter takes six weeks. The new test shows promise for use under certain circumstances.

(f) OBJECTIVE: Development and Evaluation of a New Screening (nutritional) Medium in the Bacteriological Examination of Stool Specimens.

A modified culture medium to screen out pathogenic enteric bacteria using urea and Supplement C (Difco) in combination with a triple sugar iron agar has been devised. With this medium, it is possible to separate out the

Proteus group which are not considered pathogenic when found in the intestinal tract of man.

SPONSORS: Florida State Board of Health, Florida State Tuberculosis Board, U. S. Air Force School of Aviation Medicine and the National Institutes of Health (U. S. Public Health Service).

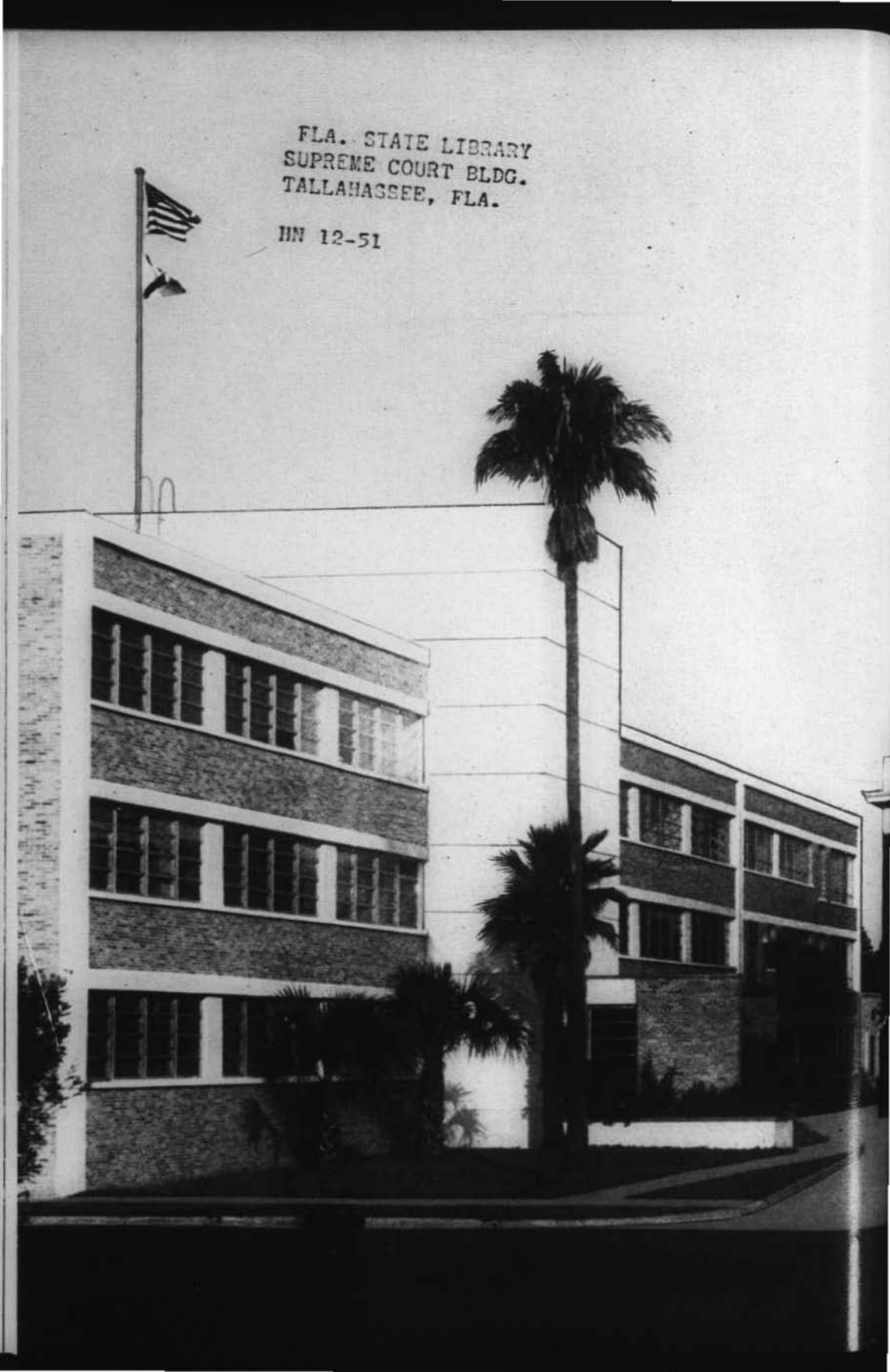


FLORIDA STATE BOARD OF HEALTH

1217 Pearl Street or P. O. Box 210
JACKSONVILLE, FLORIDA

All Counties in Florida have organized county health departments, except St. Johns County

FLORIDA HEALTH NOTES published by Florida State Board of Health since 1892



HEALTH NOTES

VOLUME 51 • NO. 4
MAY 1959

The Story of Viruses

The Story of Immunization

Although man cannot see viruses without the help of the powerful electron microscope he has ways of knowing *when* viruses are present in the body and can usually, through certain tests, tell *which* virus is present.

Through the years we have learned to immunize against the attacks of many diseases. By "immunize" we mean to make our bodies relatively safe from attack by introducing harmless portions of the germs or viruses into our bodies by inoculation. The body builds up an immunity to the disease without developing any serious symptoms of the disease.

Knowledge concerning resistance to an infection is not something new. Thousands of years before anyone had ever heard of vaccines and antitoxins the ancient Chinese, Hindus and perhaps Africans were aware that the people who had survived an attack of smallpox usually did not get the disease again even though they often served as nurses for others suffering from this loathsome ailment.

From ancient Chinese manuscripts it has been established that these Orientals sometimes blew powdered, dry smallpox scabs up infant's nostrils. In India, the practice of inoculation may be even older, as suggested by the ancient tradition of the Hindu smallpox goddess, to whom especially ordained Brahmin inoculators prayed as they inserted aged smallpox material into a small wound made in the patient's arm or leg.

It was not until 1798 that Dr. Edward Jenner, after 23 years of research and tests, announced that inoculations against smallpox were both safe and effective. He had long observed that the dairymaids of western England, who contracted "cowpox" by touching the udders of cows who had this disease, never had smallpox. He collected data on numerous cases of accidental cowpox infection in dairymaids and found that they could all be traced to a scratch on the hand or arm coming in contact with the udders of cowpox infected cows. A mild disease occurred on the seventh to the ninth day with the development of pustules at the site of the scratch. To prove they were immune and actually safe from smallpox Dr. Jenner inoculated some of these people with smallpox virus, and all failed to come down with the disease. Jenner then discovered that the "matter" from the pustules on a dairymaid's arm or hand, when applied to a scratch on a child's arm, produced typical cowpox, or "vaccinia" as it was called and that when the child was subsequently inoculated with smallpox he proved to be "preserved" from that disease.

Viruses

Today, when a person becomes ill one of the first things he may think is "Maybe I've got a virus". He might be correct, yet the term "virus" is used as if it were a specific disease rather than a large group of agents causing a multitude of illnesses. Today there are many, many viruses known to medical scientists and doctors. Each has its own little differences that sets it apart from the others, even though it may be very much like the others of its group.

Viruses, and the illness for which they are responsible, cause millions of dollars of loss in time from work, for treatment of illness and even in premature death. For this reason the study of viruses and a relentless search for ways to eliminate them from the public health picture is of vital importance to the people of Florida and, therefore, to the Florida State Board of Health.

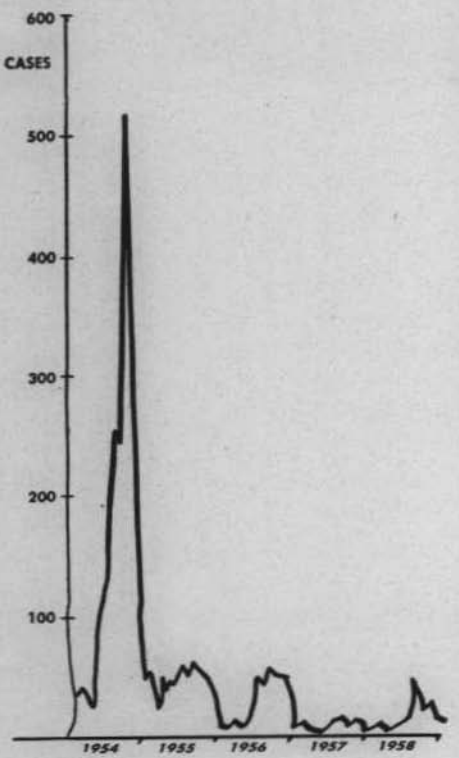
Why Should Florida Be Concerned?

Florida, because of its climate, seems to have virus problems not common to many other states in the nation. For example, throughout the entire country the summer months are considered to be the "polio season". *Polio* virus seems to circulate more freely in the community during the hot summer months, yet research has established that the

FLORIDA HEALTH NOTES

Published monthly except July and August on the 5th of the month by the Florida State Board of Health. Publication office, Jacksonville, Fla., headquarters of the State Board of Health. Entered as second class matter, Oct. 27, 1921, at post office, Jacksonville, Fla., Act of Aug. 24, 1912. It is intended primarily for individuals and institutions with an interest in the state health program, public and private. Permission is gven to quote any story. Clipping of quotations or excerpts would be appreciated.

virus is present in sewage throughout the year. Polio is with us all four seasons of the year but attacks more actively during the warm weather, possibly due to some condition associated with warm weather.



INCIDENCE OF POLIO IN FLORIDA FOR PAST FIVE YEARS

Florida, with a much longer period of warm weather has its polio spread over many months rather than a short summer period. In 1958 the incidence of polio in Florida was higher than it was in 1957, although it was still lower than in 1955 or 1956. The accompanying chart shows the seasonal variations experienced during the past five years. In 1958 there were 145 persons who had polio reported as paralytic, but only 81 cases, slightly more than half, were definitely established as paralytic polio. The rest of the cases have been proven to be other diseases simulating polio or the diagnosis is still undetermined. Only eight of the 81 proven cases had had three or more shots of the polio vaccine. Of the non-paralytic cases only seven had received three or more of the vaccine injections. In Florida, the vaccine has been proven more than 80 per cent effective.

Until recent years the diseases caused by the "ECHO" group of viruses were generally diagnosed as polio. However, now that the laboratories can identify ECHO viruses, diseases due to these are not allowed to enter the "polio-reporting" picture when laboratory confirmation is obtained. Thus, a clearer record of actual cases of both viral diseases is obtained. Three years ago illnesses from the ECHO group would have been counted as polio.

Viral encephalitis is another group of illnesses the symptoms of which are similar to polio and

which may have been mistakenly included in past polio reports. In 1958, 24 cases of viral encephalitis were reported in Florida.

Statistically, not much can be reported about the incidence of some of the less damaging but better known viruses that produce such conditions as *measles, mumps, enteritis,* etc., since so few doctors report them to the State Board of Health. It is impossible to say whether as many as one out of ten cases is reported. However, we do have our problems with these diseases just as do many other states.

In 1957 *influenza* received major attention but in 1958 little was heard about it. This was due to the spread of Asian flu in fall of 1957. Also, in 1957 pneumonia struck hard among the older people and the chronically ill of Florida, just as it did throughout the nation.

This is by no means the total picture of Florida's virus problems but indicates that there is *cause for concern and this issue* of *Health Notes* is devoted to trying to bring about a better public understanding of viruses and the problems they create. We will discuss more of them after asking the question

What Are Viruses?

The term "virus" is applied to a group of agents so small they cannot be seen by the ordinary microscope, which invade the various parts of the body and multiply. To distinguish one type from another they are divided into four general groups:

(1) Viruses which affect the skin and which are usually accompanied by rashes of varying degrees and intensities. Probably the best known in this group are viruses that cause *measles* and *chickenpox.*

2. Viruses that attack the spinal column and the brain, such as *polio* and *rabies.*

3. Viruses which attack the internal organs, such as *mumps* and intestinal troubles.

4. Viruses which attack the respiratory system. The recent appearance of Asian *flu* is a good example of this type of virus, although the *common cold* and grippe-type infections also fall into this category. *Atypical pneumonia* is a pneumotropic virus that hits hard when it strikes.

Viruses are the smallest of all known agents. Only with extreme *magnification can they be seen. Viruses are so tiny they can be* filtered through unglazed porcelain. They are so small they cannot be seen with the ordinary microscope and it was not until the advent of the electron microscope that they became visible to man. *Viruses are found in* most forms of life. They attack birds, animals, fish and plants as

well as humans. Even bacteria, small as they are, are attacked by viruses.

One of the first viruses to be discovered was the tobacco mosaic virus which attacks the leaves of the tobacco plant. It is also one of the smallest, yet scientists have broken it down to two chemical components, ribonucleic acid and protein.

Eastern Equine Encephalitis is reported to have killed many horses and mules in Florida in 1958 and there were two cases of people reported infected by this virus. Studies revealed that literally hundreds of birds carry this virus in their bodies but apparently are not harmed by it. It is spread from an infected bird to a normal bird by biting mosquitoes. Occasionally one of the mosquitoes bites a horse and infects it with the virus. The virus will multiply and might eventually kill the animal. Thus the horse then becomes an accidental host and sentinel. In this manner new mosquito carriers are created and the cycle continues. Eventually the virus is carried to man by the mosquitoes and sometimes the disease is contracted. Thus both man and horse may be considered as accidental hosts to this virus. The reason there is not a great deal more of this illness is that it takes a lot of virus to infect a horse and far more to infect man.

Knowing A Virus When You Meet One

Bacteria may be grown in artificial culture media such as gelatin or blood. Not so, viruses—they need living tissue cells in order to grow. In the early studies of viruses this meant that material containing a virus was inoculated or fed to an animal. If the animal was susceptible to this particular virus it developed the symptoms of the disease and perhaps, died of it. In either event the animal was humanely put to death and the organs and tissues were subjected to intensive study. But the expense of using live animals was a serious drawback and consequently, progress was slow. But this was the only way the characteristics of the virus and the response of "hosts" to the virus could be effectively measured. It takes a long time to identify and study viruses and virus diseases.

For instance, when it was suspected that polio had attacked an individual one or more monkeys had to be used for each test. This was very costly since the monkeys cost about $50.00 each and sometimes it required as many as ten monkeys to complete the necessary tests. Today this is no longer necessary since a system has been devised so the living cells from a monkey kidney are used each time. The cells are kept alive in a solution of chem-

▸ Modern laboratory techniques now precludes the necessity of using live monkeys in testing for polio. In the early days of polio research it sometimes required ten monkeys to complete one test. The expense of such techniques was one of the deterrents to rapid progress in the search for an immunizing vaccine.

icals on which they feed. One kidney from a monkey is adequate for a large number of tests.

Today when a polio test is made a few of these cells are placed in a test tube with a measure of the chemicals on which they feed. A specimen of the stool from the individual to be tested is added to the contents of the tube and it is placed in an incubator for seven days. At the end of that time the tube is placed under a microscope and the tissues observed. If the cells show a changed appearance then it amounts to a "presumptive positive," or it is quite probable that the patient has polio. Further tests are made to prove whether the viruses are those of polio.

The term "ECHO" as applied to a specific group of viruses, is an abbreviation of the four words in the proper name of the group —"Enteric Cytopathogenic Human Orphan"—hence, ECHO.

The Coxsackie viruses were named for the town in New York State where they were first isolated—Coxsackie, New York.

Other Tests

When *rabies* is suspected, and the animal has died, the brain of the suspect animal should be sent to the State Board of Health Laboratories. A portion of the brain is used to make a smear on a microscope slide. This is stained and placed on the viewing table of a microscope. If there are certain elements present (called Negri bodies) the test is "positive" and treatment is begun on the person (s) bitten by the animal. If the Negri bodies cannot be found, mice are used for additional and more sensitive tests. When a mouse is injected with "brain material" thought to contain rabies, it takes ten days to three weeks for positive

▶ The technician is here preparing to remove a portion of a possum brain for rabies testing. A smear will be made from a portion of it and examined microscopically. If necessary, the mouse test is then made for positive identification.

symptoms to appear. The mouse first grows wan, his hair ruffles up and he dies. The tiny brain is removed and a microscopic study will show whether the mouse had rabies. Since the mice are scientifically bred of pedigreed stock in the animal houses of the State Board of Health Laboratory there is no opportunity for the test mouse to contact any animal from which it might acquire the disease. Therefore, if the test mouse dies of rabies it can be positively reported that the animal from whose brain the material was taken was rabid, and the person bitten should be given rabies treatment right away.

A new technique, designed to supplement the present tests for rabies, is now under study in the Bureau of Laboratories of the Florida State Board of Health. Some of the brain material from the suspect animal is placed on a slide and stained with a fluores-

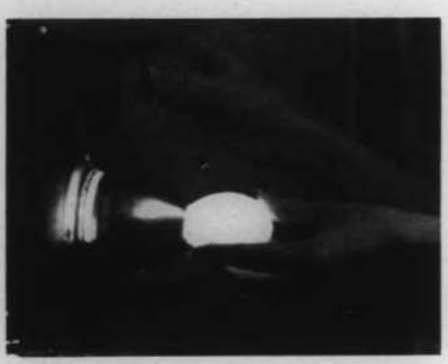
cent material. Subjected to and observed under an ultra-violet light, collections of rabies virus appear as spots on the slide which glow bright green. Thus far, a high degree of accuracy has been indicated. As with all research, the scientists are reluctant to draw final conclusions on the basis of first results, and exhaustive tests will be made before there are any final conclusions.

In influenza, eggs containing live chick embryos are used for testing. The throat washing from a suspect influenza patient are injected into the living embryo and the egg is placed in an incubator where it is checked every 24 hours for several days to see if the embryo is still living. After several days certain fluids are drawn from the egg and tested for the presence of influenza virus.

An experimental method to test for rabies is shown here. A portion of animal brain from a suspect animal is placed on a slide and refrigerated for six hours. It is then strained with a fluorescent material and placed under this microscope. The equipment attached to the microscope produces a strong ultra-violet light which causes the presence of rabies virus to be indicated by brightly glowing green spots.

When testing for the Coxsackie viruses suckling mice are used. The baby mice are injected and then subjected to certain tests to determine whether the viruses are present. Coxsackie viruses may produce diseases similar to polio.

These and many other laboratory tests are used to determine whether human illnesses are or not due to viruses.



The live chicken embryo in this egg is being inoculated with the throat washings of a person believed to be a victim of influenza. Following inoculation the egg is incubated and observed for several days then certain fluids are drawn off for study.

Where Do All The "New" Virsuses Come From?

This is a question doctors and scientists are most often asked. They find it difficult to explain to the average layman that viruses have always been with us, but that so many years went by without our knowing about them that deaths caused by viruses were often attributed to something else. Also, only in recent years were scientists able to prove that new strains of viruses probably came from "mutations" (changes in form of existing viruses) which give them a different character from that of the original virus from which they sprang.

Just as with animals, occasionally there is one offspring that is entirely different from the rest. If allowed to breed, the newcomer will eventually create a new species different from his parents. The same thing is believed to happen with viruses. For example, the Asian flu epidemic that surged across the nation two years ago was believed to be due to a mutation of one of the known influenza viruses. Because it had changed itself into something slightly different the known drugs and immunizations were not as effective against it and a new vaccine had to be developed to fight it.

Scientists are now hitting viruses with all the big guns at their command. Step by painstaking step more is being learned about viruses and as each new discovery comes to light the next step becomes more apparent. A faint glimmer has come within the last decade that may spring forth eventually into blazing light. The tobacco mosaic virus, mentioned earlier, has been studied exhaustively. It can new he separated into two components, nucleic acid and pro-

tein, thus destroying its activity. By mixing the two together again the elements reform into the original virus and begin to reproduce and live as they did before they were separated. They even look the same under the electron microscope as they did prior to separation of the elements.

This might be an important clue to the composition of other viruses and scientists are hoping that they can eventually learn enough about the others to be able to destroy them.

In the meantime, we are seeking immediate answers to the problem of how to prevent virus diseases. The best ways at present are (1) to immunize against them when possible, and (2) to break the chain of transmission. The effectiveness of immunization is best demonstrated by the value of *smallpox* vaccinations.

In all cases, the public must cooperate and do its share to help. The vaccination of pets against rabies is an example. So take your pets to the veterinarian at regular intervals to get their shots.

The chain of transmission of *yellow fever* could be broken when it was discovered that the mosquito was the offender. Efforts to eliminate it as the carrier were successful.

Virus transmission from man to man is a little more difficult to interrupt. The chain of infection of mumps, measles and chickenpox, for instance, is not easily broken since the period of transmissible infection comes before the symptoms develop.

What Do You Do About Viruses?

There are some viruses that are comparatively mild in their effect on humans. They bring about a mild illness wherein the individual runs a fever, is often nauseated and lacks energy. Since these symptoms might also indicate other conditions your doctor should be called upon to advise you. He can decide what is causing the illness and determine the

These drums contain test tubes into which have been placed live monkey kidney cells and specimens from persons suspected of having polio. The drums rotate slowly in this room which is a large incubator. At the end of seven days the test tubes are examined microscopically for the presence of polio viruses which may be present.

proper treatment. Self-diagnosis is risky—for some viruses, such as polio, can start with a mild headache, chills and then fever. Early polio is similar to a number of mild ailments. But suddenly it strikes with the force of a tornado and then it is too late for the doctor to do more than diagnose swiftly and provide the best help available.

We know that people who have influenza and other viruses can infect those who expose themselves to the ill person. For that reason, your family should be "isolated" from the infected member if possible.

However, there are other viruses that are difficult to avoid. Polio is probably transmitted by close contact of an infected person with others. If polio breaks out in your vicinity it is best to avoid crowds and stay away from public places such as municipal swimming pools, theatres, etc.

In the case of rabies it is necessary that some of the saliva of the infected animal enter the body through a break in the skin. If a rabid dog, or one suspected of rabies, should bite a member of your family NOTIFY YOUR COUNTY HEALTH DEPARTMENT. The owner of the animal will be asked to keep the dog isolated for a period of ten to fourteen days. If the dog dies within this time or develops an unmistakable case of rabies the person who was bitten will be advised to take antirabies treatment. However, in case of a dog bite notify your family physician at once. This is important, for your physician will want to examine the bitten area and give first aid or other treatment as needed.

Viruses were first discovered by a Russian, Ivanowski, in 1892, and recognized as a new class of disease-producing agents by the Dutch scientist, Biejerink, in 1898. In 1898 Loffler and Frosch discovered the first animal virus, hoof-and-mouth disease of cattle, and in 1901 Walter Reed and associates discovered the mode of spread of a major virus disease of man, namely, yellow fever.

Shots And More Shots

The report of work on "cold shots" aroused much public interest—for everyone has been hoping that something to lick the common cold could be found. Employers would be ready to finance programs to give their employees these injections if proven effective since the time lost from bad *colds* has been a heavy economic loss. The results, at present, are inconclusive. There is some new hope, but there is no reason to think that the common cold is down for the last count.

Influenza still presents many problems. There are four known types of influenza virus with so

many different strains to each that it is difficult to find a complete record of them. The influenza virus has the facility of being able to change itself as time goes by, thus bringing into the world a completely new strain against which there is no natural immunity. Scientists maintain world-wide surveillance to try to spot new strains as they appear and to notify the medical profession of what to expect. The vaccine manufacturers go into production and the vaccines are made available to the public so the disease can be headed off before it reaches epidemic proportions.

A good example of this procedure was the Asian flu situation that developed during the winter of 1957-1958. A new strain was isolated in the Far East and scientists quickly realized it might spread throughout the world. The public was notified by means of press, radio, television and other media and the vaccine was rushed into production. It is believed by many scientists that the incidence of severe cases was very low compared to what it might have been had the new vaccine not been made available.

Science has now progressed to the point where it would be possible to isolate and identify the influenza virus which created such havoc during World War I and which killed millions of people. A preventive vaccine could be prepared promptly. Its widespread use could greatly reduce the number of cases and deaths.

One of the greatest outbreaks of infectious disease in the history of mankind was the influenza epidemic of 1918 during which an estimated 500 million people contracted influenza and 15 million died, yet at that time influenza was not recognized as a virus disease. It was not until 1931 that three scientists, Smith, Andrewes and Laidlaw isolated the influenza virus of man.

Every time you have influenza symptoms an immunity to that particular strain which produced the illness is developed. Therefore, if you have had influenza repeatedly you have, most likely, been attacked by different strains of virus.

Carefully controlled testing in the armed forces, where the daily life of the individuals involved could be controlled as desired, proved the value of the influenza vaccine. The percentage of those receiving the shots who became ill was conclusively lower than among those who did not receive them. So you can rest assured that if you have taken the flu vaccine you have some protection against the strain used in that vaccine.

Infectious hepatitis, one of the symptoms of which is yellow jaundice, is another condition about which the scientists are seeking to learn more. All the evidence today indicates that this is also a viral infection—yet the true infecting agent has not yet been isolated. A field test, using gamma globulin injections, was made in an area that was thought to be developing an outbreak of hepatitis. The results, though from too small a group to be of any value scientifically, did indicate that any value derived from the use of gamma globulin was apparently gone by the end of a few months.

Antibiotics Are Not Effective

There is a popular belief today that the antibiotics, such as penicillin, should be able to destroy viruses. This is not true. The viruses do not respond to treatment by antibiotics. Penicillin will not cure a cold. In fact, when a specimen is submitted to the laboratory for testing, penicillin is used to kill the bacteria in the specimen and thus purify it. This is done without any effect on the viruses present.

Virus causes some forms of cancer in animals and it is suspected that it may do likewise in man.

Thus we have seen some of the problems connected with the war on viruses. Slowly, relentlessly, science is fighting for the day when the viruses prevalent now will have joined smallpox, yellow fever and others in the U.S. that are rendered helpless by constant vigilance. Polio is not now the threat that it used to be, yet doctors are appalled at the number of people who think that it is safe now to neglect their immunizations. The public must join the battle and do its part at once to prevent diseases which have been conquered by science.

To this battle the Florida State Board of Health will gather all its forces, for *prevention* is our watchword.

Only eight years ago a smallpox scare hit the city of New York when a leather buyer stopped off there on his return from Mexico. The man had fever and, since he was a stranger in town, he was hospitalized.

Symptoms were nonspecific, and when the patient died, the diagnosis was still tentative. After the body was cremated, smallpox was recognized in a man and two children who had been in the same hospital and in seventeen other persons. Four died.

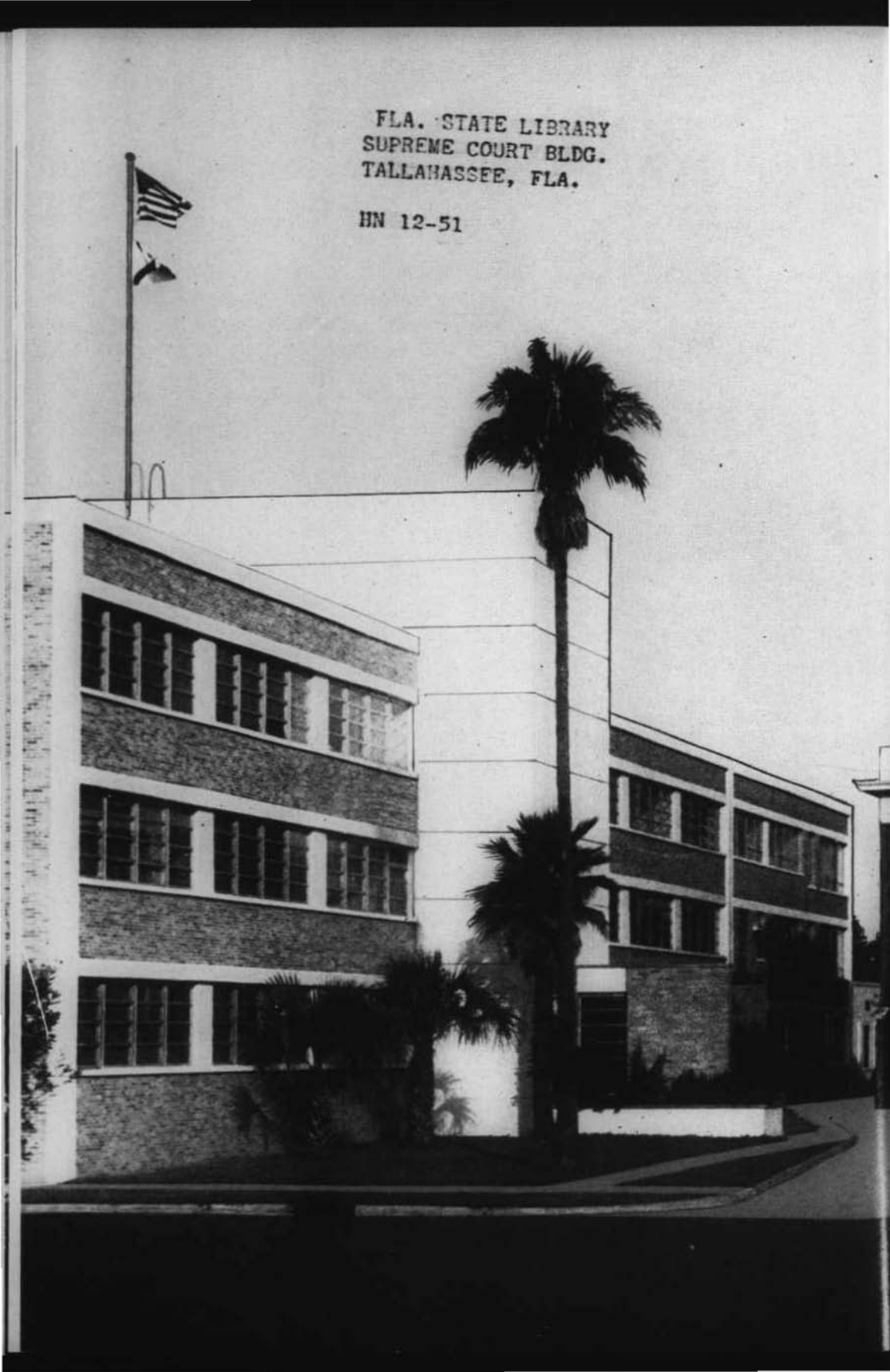
Suddenly, smallpox vaccine had to be, and was, provided to protect six million people. Mass vaccination proved that a large percentage of previously vaccinated persons had lost their immunity. It is well known that complete protection requires revaccination at five to seven year intervals, but it took a threatened epidemic to translate this knowledge into action.

FLORIDA STATE BOARD OF HEALTH

1217 Pearl Street or P. O. Box 210
JACKSONVILLE, FLORIDA

All Counties in Florida have organized county health departments, except St. Johns County

FLORIDA HEALTH NOTES published by Florida State Board of Health since 1892



Florida HEALTH NOTES

Year in Review: 1958

THE YEAR IN REVIEW 1958

EACH YEAR THE FLORIDA STATE BOARD OF HEALTH publishes an official Annual Report. Then we try and pass on to the readers of the June issue of *Florida Health Notes* some of the highlights that we have abstracted from the longer, more technical report. We think that you like to keep up with what is happening in Florida that concerns the public health — your health.

This year we have reviewed, in part, the duties and responsibilities of the Florida State Board of Health and the County Health Departments — and then matched *some* of them up with what actually happened in 1958. The following, then, are *some* of the activities in your public health departments last year. You can see that we were busy — in your behalf.

* * *

Protect the Health of **MOTHERS AND CHILDREN**

During 1958, 62 women died in Florida from causes related to pregnancy and childbirth. This is a rate of 5.7 (that's about 6 women per 10,000 live births). Ten years ago this figure was 17.5 per cent. Some of the 62 deaths mentioned above were considered to be preventable.

There were 3416 infants under 1 year of age who died (that's about 32 per 1000 babies born alive). We are not making too much headway in further reducing the number of infant deaths these days probably due to our inability to prevent some of the conditions that are seen in the first month of life: birth deformities, birth injuries, and conditions associated with premature births.

Midwives are still with us in Florida, although every year the number grows smaller (257 were licensed in 1958). Our nurse-mid-

FLORIDA HEALTH NOTES

Published monthly except July and August on the 5th of the month by the Florida State Board of Health. Publication office, Jacksonville, Fla., headquarters of the State Board of Health. Entered as second class matter, Oct. 27, 1921, at post office, Jacksonville, Fla., Act of Aug. 24, 1912. It is intended primarily for individuals and institutions with an interest in the state health program, public and private. Permission is given to quote any story. Clipping of quotations or excerpts would be appreciated.

wife consultant continuously works with these women in order that they may better serve mothers in remote rural areas and those from low-income groups who comprise their patients. All these mothers must attend a clinic and be seen by a physician before the midwife is given permission to deliver them.

The Premature Demonstration Center at Jackson Memorial Hospital continues to show what good care will do for babies "born too soon." During 1958, 273 premature babies from Dade, Broward and Palm Beach counties were cared for at the Center. Two 5-day seminars were held at the Hospital for 70 nurses and 11 physicians who came from all over the state to learn more about "preemies." Two 1-day sessions were held at Ft. Myers and Ft. Pierce which 150 nurses and 19 physicians attended.

Among newborn babies, 3 to 4 out of every hundred are born mentally retarded. To further study this problem in Florida, a Developmental Evaluation Clinic has been set up in Dade County with a grant from the U. S. Childrens Bureau. Also, orientation programs at Sunland Training Center in Gainesville are being planned for public health workers.

A big activity in the field of mother and child care is the Migrant Project in Belle Glade in Palm Beach County. Public health nurses, a health educator, nutritionist, medical social worker and sanitarian, under the direction of the county realth officer, are trying to learn more about migrant agricultural workers' health problems. These migrants come to seek work in the fertile Lake Okeechobee area.

Provide for the Control of **COMMUNICABLE,** Contagious or Infectious **DISEASES**

More persons contracted polio in Florida in 1958 than in 1957. However, of the 145 cases reported as paralytic, only 81 were definitely established as polio. The others are still under study or proved to be some other disease. Of the 81 cases above, only 8 had received 3 or more injections of polio vaccine.

Over 250,000 completed polio immunizations were given in County Health Departments; a much larger number is presumed to have been given in private physicians' offices. But it is known that the manufacturers of polio vaccine produced only one-half as much

vaccine as they did in 1957. Therefore, there were probably fewer immunizations given in the past year. So, polio still remains a serious threat to people under 40.

There were 63 cases of diphtheria with 4 deaths. A small epidemic 30 cases and 2 deaths) occurred in Hillsborough County. None of the persons who had a severe case of the disease or the two who died had ever been immunized against diptheria.

Aseptic meningitis attacked 349 persons; viral encephalitis 24.

Tetanus continued to have a high fatality rate — out of 40 persons contracting the disease, 27 died, and 6 of these were newborn infants. "High risk" groups are found in or among urban residents in southeastern Florida; non-white unskilled laborers; all residents in the Lake Okeechobee area; expectant mothers in the low-income group, particularly those delivered at home by midwives; older people with skin sores.

Typhoid fever: 25 cases reported. The 107 known typhoid carriers in Florida are checked at regular intervals.

Tuberculosis accounted for 2226 cases in 1958. The death rate was twice as great among Negroes. There was an increase in the number of deaths (257 in 1957 to 290 in 1958) however, with a 4.6 per cent population increase this figure is of little significance.

. . . A grand total of 497,577 X-rays were made. Emphasis was placed on tuberculin testing this past year — 34,600 tests were made as compared to 21,438 in 1957.

In the venereal diseases, early syphilis is the major target, for it is the "primary" and "secondary" cases that spread it more easily. Trained interviewer-investigators, particularly in the larger cities, interview persons with early syphilis in order to obtain the names of their contacts so that they may, in turn, have a blood test and/or other examinations to determine if they, too, have contracted the disease. . . . The two major venereal diseases, syphilis and gonorrhea, are reported most frequently in young persons between the ages of 15 to 24. It is this age group that we must make every possible effort to educate concerning the method of spread and control of these diseases.

Reported Cases of Syphilis and Gonorrhea
Florida 1949-1958

YEAR	SYPHILIS	GONORRHEA
1949	12,363	15,388
1952	10,824	11,809
1955	5,541	12,146
1958	3,186	10,329

Among the diseases transmitted by animals to man: brucellosis attacked 5 persons last year. In cattle, 1934 reactors were found and disposed of . . . . . Eastern equine encephalomyelitis was reported in 94 horses and mules, and 2 human beings . . . . . Leptospirosis was reported more in 1958: 800 animals and 15 human cases were confirmed by laboratory tests . . . . . Rabies continues to decrease (62 cases in 1958 as against 122 in 1957). Among the animals reported as having the disease were 16 foxes, 15 raccoons, 14 dogs, 7 bats, 6 cats, 2 cows and 2 skunks.

Conduct Programs for the Control of **CANCER**

Education, research and service are still the three watchwords in cancer. Tumor clinics (conducted with the assistance of the American Cancer Society, Florida Division) are located in Pensacola, Tallahassee, Panama City, Jacksonville (2), Gainesville, Ocala,

Daytona Beach, Orlando, Lakeland, Tampa, St. Petersburg, Sarasota, Bradenton, West Palm Beach, Fort Lauderdale and three in Miami. These clinics see suspected cases of cancer if they have been referred by a physician. If the patient is unable to pay for care, the physician in the clinic sees him and the pathologist examines specimens of tissue — both without cost to the patient. The State Board of Health paid $15,454.76 last year for other laboratory tests, though many hospitals do not charge for minor tests for these patients. The private physician's office, however, is still considered the best detection center for the early diagnosis of cancer.

The Hospital Service for the Indigent Program can also pay hospital costs for a cancer patient, provided it is felt he has a chance for recovery.

Conduct Programs for the Control of **HEART DISEASE**

County Health Department reports show that 14,906 visits by public health nurses were made to patients with heart conditions in 1958. These nurses also visited the homes of persons registered in the State Board of Health's rheumatic fever case register to determine if they have had a recurrence of this disease.

The Northeast Florida Cardiac Work Classification Unit, which is supported jointly with the Northeast Florida Heart Association, saw 26 new patients. Six were returned to work while 3 were offered opportunities for special training (for less-demanding jobs) by the Vocational Rehabilitation Service of the State Department of Education.

A study of heart disease among children at the Florida School for the Deaf and Blind continues in cooperation with the U. S. School of Aviation Medicine at the Pensacola Naval Air Station.

Conduct Programs for the Control of **DIABETES**

Diabetes remained among the 10 leading causes of death in 1958.

Blood relatives of persons with diabetes, particularly those who are receiving all or a part of their insulin from the State Board of

Health, have been the object of an intensive blood testing program. Names of brothers, sisters, parents and children are being obtained from known indigent diabetics and then arrangements are made for these people to report to their County Health Department for a blood test to determine the sugar content of their blood. Relatives of diabetics are more likely to have the disease than the general population. A total of 638 tests were made in Duval, Jefferson, Madison, Marion, Putnam, Hillsborough, Taylor and Suwannee counties, and out of this number 30 new diabetics were found.

Insulin or Orinase (costing $37,122.29) was supplied through the County Health Departments to 2687 indigent persons this past year. These drugs fell short of the actual need when the State Department of Public Welfare discontinued providing insulin (due to a change in federal regulations) to some of their welfare recipients during the latter part of the year.

A leaflet "Timely Topics" was sent bi-monthly to a mailing list of 2600. It helps the diabetics and their families to know how to care for themselves better and supplements advice they get from their family physician.

Inspect and Issue **LICENSES** for **HOSPITALS** and **NURSING HOMES**

The year 1958 was the first full year for Florida's mandatory licensing law. A Hospital Licensure Advisory Council, appointed by the Governor, develops licensing standards, which are then approved by the State Board of Health and carried out by a survey team from our staff.

Here are a few figures from last year:

Hospitals and related institutions surveyed		192
Institutions found ineligible for classification as a hospital	8	
Institutions which voluntarily ceased operation	10	
		−18
		174

Hospitals licensed	119
Hospitals remaining to be licensed 12/31/58	55

(It is anticipated that most of the above 55 hospitals will be eligible — by reason of improvement — for licensing in the near future)

Rules and regulations for the licensing of nursing homes were revised and improved. In all but 3 counties (Dade, Duval and Orange) homes for physically handicapped and mentally retarded children now come under these regulations. Emphasis was placed on fire protection, safe building construction, sanitation and good nursing care.

The State Board of Health cooperates with the County Health Departments in the licensing of these homes: 344 in 1958 with 8617 beds. Plans for 27 new nursing homes were reviewed.

Administration of a Program Designed to Provide **HOSPITAL CARE FOR THE INDIGENT**

This is state-county financed and administered; its purpose is to provide hospital service for medically indigent persons who are acutely ill or injured. Every county participated except Okaloosa. Later on in the year Gulf, Franklin and Washington counties withdrew.

The conditions for which hospitalization was provided most frequently were diseases of the circulatory and respiratory systems, cancer and conditions associated with childbirth.

The State Board of Health's records show the following figures:

Expenditures for hospital care	$3,766,840.28
State funds	1,716,685.38
County funds	2,050,154.90
Average cost per admission	195.62
" " " patient day	20.01

Conduct Programs for the Control of **MENTAL HEALTH**

There are now 16 full-time mental health clinics in the following counties: Alachua (2), Bay, Broward, Dade, Duval, Escambia, Hillsborough, Leon, Manatee-Sarasota, Orange, Palm Beach, Pinellas, Polk, St. Lucie-Indian River, Volusia.

During 1958, 5381 patients received some type of service from these clinics. Those who were 9 years of age or younger comprised 33 per cent of the patients. Those 13 years or younger accounted for 56 per cent; only 2 per cent were 45 years or more.

Many of the clinic personnel (psychiatrists, psychologists, psychiatric social workers) devote at least 50 per cent of their time to educational work in the community, cooperating with such groups as juvenile court staffs, public health nurses, principals' associations, welfare workers, civic leaders, etc.

In 32 County Health Departments, 22 mental health workers helped to carry on an intensified mental health program, concerned primarily with the prevention of mental illness, emotional and behavior problems and their relationship to other public health programs. Started in 1954, this mental health worker program is somewhat unique in the country and is being watched with much interest by other states.

There were 1557 persons who were assisted by County Health Departments in either being admitted to a State Hospital (for the mentally ill) or after they had come home for a trial visit. Altogether, 6749 persons were admitted to mental health services in the County Health Departments, a considerable increase over 1957. This is a result of the Health Departments' increased interest in locating these ill persons early, and in helping returned patients make a successful readjustment to living at home again.

The Florida Council on Training and Research in Mental Health, which is appointed by the Governor, held 5 meetings during the year to discuss matters pertaining to mental health research, and the training of mental health professional personnel for Florida. The council also recommended that certain scholarships be awarded and grants for research be made.

Control of **NARCOTICS** and **HEALING ART PRACTICE**

The State Board of Health narcotic inspectors made 132 arrests during the year. Narcotic violations accounted for 93. A large num-

ber of these were non-white young adults living on the lower east coast who had recently come to Florida. The history of many of these people showed that they first smoked marihuana and then switched over to heroin, the most enslaving of all the illegal narcotics. Eighteen narcotic addicts were confined for treatment.

Other arrests were: 4 medical cases, 7 pharmacy cases and 28 amphetamine and barbiturate cases. Of the latter, one involved the seizure of 45,000 amphetmaine tablets, a second 16,000 tablets and a third involved teen-agers. (Amphetamine tablets are usually used as stimulants and can legally be sold only on prescription). The State Board of Health also enforces the Medical Practice Act and the State Pharmacy Laws.

Education is constantly carried on by the inspectors. Talks and demonstrations were made to PTAs, schools, universities, police-training classes, nurses, pharmacists and medical groups. Also, during unannounced inspection of drug stores, instruction is given to the personnel on how they may help carry out the intent as well as the letter of the law.

Promote **DENTAL HEALTH**

Dental decay is the most widespread degenerative disease in Florida today — as it is in the other 49 states. Emphasis is placed on education of our citizens concerning balanced diet, good mouth hygiene, regular dental care by a family dentist and the use of sodium fluoride, either applied directly to the teeth or put in the community water supply. Over 50,000 pamphlets were distributed plus 150 dental packets for teachers. TV, radio, exhibits, talks and participation in summer courses for teachers helped to emphasize prevention of dental defects. Assistance was given to a 4-H Club cooperative program in conjunction with the Agriculture Extension Service and the State Dental Socieety. This project involves dental health education in the individual clubs, dental examinations and corrective services for their club members by private dentists.

Nine County Health Departments have dental corrective clinics. In some of these clinics, 8 "dental preceptors" are working. These

are young, recently graduated dentists who work in public health departments for a year (or longer) before taking examinations to be licensed to practice in Florida. The State Board of Dental Examiners participates in this program as well as the county dental societies where these young men work.

The first full-time Negro dentist was employed on the state level to operate the new mobile dental unit which serves young Negro school children in the rural areas.

Supervise Sanitation of Public **WATER** and **SEWAGE DISPOSAL:** General Control Over **WATER POLLUTION** by Industrial Wastes

The rapid growth of Florida's population continues. Last year some 80,000 homes were built as well as a large number of hotels, motels, apartments and commercial buildings. Naturally, there has also been an increase in the need for safe water supplies and safe disposal of wastes, both human and industrial.

Many engineering plans and specifications for proposed water works and systems were reviewed during the year — a total of 862 including water works and swimming pools. They represent an estimated construction cost of $34,385,287. . . . . There is presently a lack of qualified water works operators so emphasis was laid on the training of these men and also of sewage plant operators by means of short-course schools held over the state. Following examinations, certificates were awarded as follows:

	Class A	Class B	Class C
Water plant operators	4	7	64
Sewage Plant operators	15	26	81

The sewage problem in subdivisions is indicated by the fact that twice as many plans were approved for them as there were for municipalities. There seems to be a growing realization that septic tanks are not the answer when many homes are placed close together.

Sanitary sewers are now available to serve 65.1 per cent of the

Approve Plans for and Supervise Operation of Public **SWIMMING POOLS** and **BATHING AREAS**

PERMITS ISSUED FOR SWIMMING POOLS, NATURAL BATHING PLACES, BOTTLED WATER PLANTS, WATER WELLS AND DRAINAGE WELLS; PLANS APPROVED FOR PROPOSED PUBLIC SWIMMING POOLS, BY COUNTIES 1958

COUNTY	PERMITS ISSUED						Plans approved for Proposed Public Swimming Pools	
	Swimming Pools**	Natural Bathing Places**	Bottled Water Permits	Water Supply Wells	Swimming Pools	Drainage Wells	Number	Estimated Cost
STATE	1,482	52	30	242	321	342	314	$4,151,123.00
Alachua	8	2	1	2	3		4	50,555.00
Baker				1				
Bay	6	1		4	4		4	40,000.00
Bradford	4			2	2			
Brevard	9			2	3		12	132,725.00
Broward	364	2	2	8	55	15	70(**)	970,228.00
Charlotte							2	41,500.00
Citrus	2			3			1	
Clay	2	8						
Collier	2			2			3	30,500.00
Columbia	5				1			
Dade	530	2	3	8	60	287	60(**)	737,200.00
Duval	27		1	6	5		11	188,500.00
Escambia	6	1		3	1	1	4	109,800.00
Franklin		1						
Gadsden							1	
Gilchrist				2				
Gulf				1				
Hamilton		1						
Hardee				1		2		
Hendry	2							
Hernando				2			1	30,375.00
Highlands	1	1		1			1	10,000.00
Hilliborough	7	7	1	34	1	6	5(**)	59,335.00
Holmes				1				
Indian River	10		1	3	7		5	40,000.00
Jackson	2							
Jefferson						1		
Lake	10	1		11	1	1	1	11,000.00
Lee	13		1	2	3		5	61,000.00
Leon	10	3		6	5	3	4	41,150.00
Levy	2				1			
Liberty		2		1				
Madison	2				1			
Manatee		2	2	13			2	34,500.00
Marion	25	3		4	1		2	28,630.00
Martin	4		1	1	4	4	8	89,000.00
Monroe	21				11		8	240,000.00
Nassau	4			1	2		2	26,000.00
Okaloosa	1			3			1	12,000.00
Okeechobee	1				1			
Orange	19	1	1	28	5	16	8	173,000.00
Osceola	1				1		1	11,000.00
Palm Beach	94	1	3	11	44	1	19	199,300.00
Pasco	1			5				
Pinellas	120	3	2	12	42	1	25	304,250.00
Polk	26	3	1	10	13		5(**)	40,500.00
Putnam	2						2	9,000.00
St. Johns	16				4		4	32,500.00
St. Lucie	13		1	2	4		2	9,300.00
Santa Rosa	1			3	1			
Sarasota	33	1	2	16	10	3	12	172,975.00
Seminole	6	4		16	2		1	
Sumter				1				
Suwannee	1			2				
Taylor	2		1				1	14,000.00
Volusia	64		2	8	23	1	16	176,300.00
Wakulla	1	1						
Walton							1	25,000.00
Washington	2	1						
Out of State			4					

** Accumulative or Continuous
(**)Local County Approvals

estimated total population, and sewage treatment facilities are sufficient to serve 65.8 per cent of the people.

The year 1958 saw continuing cooperation between the State Board of Health and federal insuring agencies for housing in respect to sewage disposal problems. FHA forms processed: 484; VA: 1133. The majority of FHA forms were submitted from Dade County. VA forms came from 42 of the counties.

Because of the growth of the state, with respect to both housing and industry, it is most important that there be close control of the disposal of wastes in our streams, if our waters are to be protected for future generations. Pollution surveys were made of Escambia-Conecuh River system, Escambia Bay, Perdido Bay, Crystal River and Shingle Creek. Waters from 58 counties have been analyzed for radioactivity.

It is impossible in this small booklet to acknowledge all the people and organizations with whom we work so harmoniously, both on a state and local level, or to give them all their due credit for cooperative projects. To the many official and voluntary health agencies, and to those in related fields, go our thanks—from the 1840 persons who comprise the staff of the Florida State Board of Health and the 66 County Health Departments.

Inspect and Issue Permits for **TOURIST** and **TRAILER** Camps

NUMBER OF SPACE ACCOMMODATIONS PROVIDED IN PERMITTED TOURIST AND TRAILER PARKS BY COUNTIES (1958)

County	Permitted Establishments	Trailer Spaces		
		Indep	Dep	Totals
ALACHUA	6	305	...	305
BAY	31	507	...	507
BREVARD	20	667	32	699
BROWARD	41	2,137	271	2,408
CHARLOTTE	3	71	117	188
CLAY	1	13	...	13
COLLIER	2	68	...	68
DADE	37	3,011	10	3,021
DUVAL	1	7	...	7
ESCAMBIA	19	427	...	427
HENDRY	1	19	...	19
HIGHLANDS	1	9	...	9
HILLSBOROUGH	43	1,528	58	1,586
INDIAN RIVER	2	12	20	32
JACKSON	1	12	...	12
LAKE	2	29	...	29
LEE	2	30	23	53
LEON	1	5	...	5
MANATEE	22	2,124	198	2,322
MARTIN	5	100	...	100
MONROE	6	70	12	82
NASSAU	1	...	10	10
ORANGE	33	670	1	671
OSCEOLA	1	12	6	18
PALM BEACH	28	1,529	10	1,539
PASCO	5	82	...	82
PINELLAS	122	5,771	1,477	7,248
POLK	8	351	...	351
ST. LUCIE	4	91	...	91
SANTA ROSA	1	4	...	4
SARASOTA	16	606	63	669
SUMTER	2	6	2	8
VOLUSIA	9	197	27	224
WALTON	1	9	...	9
TOTALS	478	20,479	2,337	22,816

NOTE: Independent Trailer — A trailer coach which has a toilet and a bathtub or shower.
Dependent Trailer — A trailer coach which does not have a toilet nor a bathtub or shower.

Supervise Operation of **SHELLFISH** and **CRUSTACEA** Meat Processing and Handling Plants

As in the past, Florida's shellfish production was concentrated in the Apalachicola area. In Franklin County 42 establishments were certified as meeting requirements for the safe handling of oysters. Much emphasis was placed on high sanitation standards. After June 30, 1958, no plant was allowed to operate that did not have flush-type toilets and approved waste disposal systems. . . . Oysters are also being found in larger quantities in Santa Rosa County so that plans for more shucking plants are being drawn up.

In crustacea (crabmeat) production there were spasmodic shortages of the raw product. One of the outstanding incidents of the year was the condemnation of approximately 3000 pounds of crabmeat in Nassau County and the holding of 18,000 pounds (in storage) that had been produced by the same organization.

Provide for the Inspection of **BEDDING**

In 1958 the educational phase of this public health activity was stressed. A pamphlet "When You Buy Bedding" was prepared and distributed to all retail furniture stores; 800 kits of bedding materials were placed in junior and senior high schools to be used in teaching some 20,000 homemaking students; 2 TV programs were presented in Dade County.

There was a gradual increase in enforcement activities. Based on laboratory tests of 225 samples of bedding materials, 103 violations were found. "Off Sale" notices covering 2293 articles were issued; later 1721 were permitted for sale following corrections.

Promote Health of Industrial Workers

Environmental dust counting was done in 4 iron foundries and 2 plants manufacturing ceramic tile. A survey was done in a plant producing elemental phosphorus; a lead smelting plant and a large newspaper plant. The 2 industrial hygiene chemists made 654 analyses, visited 61 industrial plants and collected 129 samples.

Blood and lead urine tests were made on employees exposed to lead. . . . Numerous battery plants and insecticide mixing plants have been visited and some of them presented potential health hazards to the employees. Recommendations were made for their

protection. . . . Two air sampling stations were operated for the USPHS and 463 tests made for radioactivity. . . . Radiation surveys were done in Nassau, Duval and St. Johns Counties. The only unusual readings were obtained on or near the beaches of the Atlantic Ocean.

Prevention of **AIR POLLUTION**

In March 1958 the Florida Air Pollution Control Commission (appointed by the Governor) established an Air Pollution Control District in Polk County. This was done because there have been charges that fumes coming from the phosphate industries have caused damage to citrus and cattle. Nine industries with 12 plants in this area are involved. . . . Other examples of air pollution include: dust and smoke from the industrial area between Riviera Beach and West Palm Beach; smoke coming from an aluminum smelting plant in Miami; dust from a concrete manufacturing plant in Tampa, and many others. Chemists from the State Board of Health make analyses of samples of the air taken and recommendations are then made for corrections.

Administration of a State-Wide **MOSQUITO CONTROL PROGRAM**

From a mosquito-free standpoint, the summer of 1958 was the best that had ever been experienced in Florida. This was brought about not only as a result of mosquito control work that has gone on in the state for many years, but also because of certain climatic conditions which prevailed as concerns rainfall, temperature, freezes, etc. This eliminated a lot of the breeding of salt-marsh mosquitos. However, the dog fly situation was worse in the late fall than it had been during previous years due to the fact that spraying had to be stopped in October because of lack of funds.

Laboratory personnel identified more than 1,040,000 mosquitos in 12,817 collections taken from 142 light traps over the state.

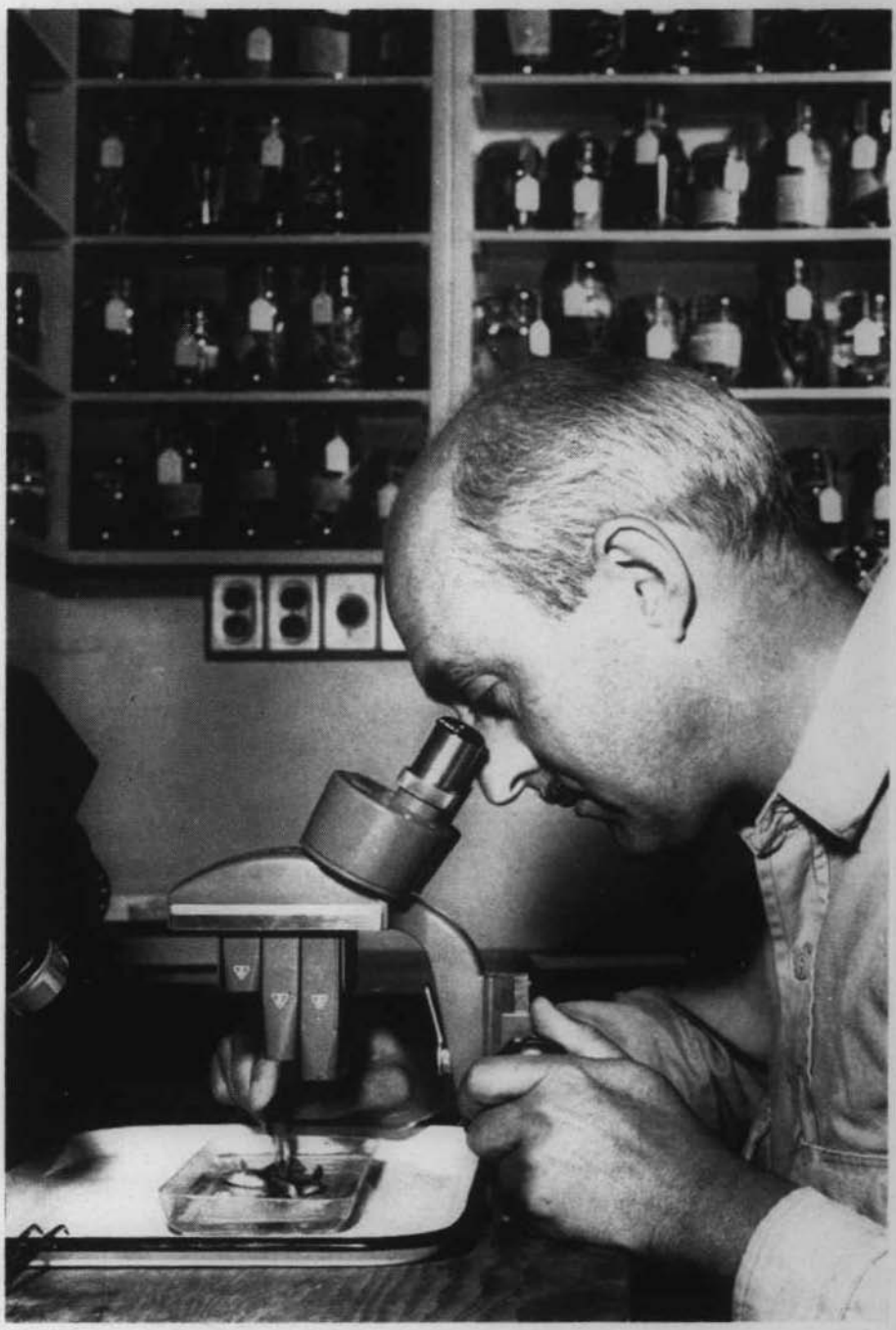
Seven new health centers (usually County Health Department headquarters) were built during 1958; also, 6 new auxiliary health centers situated in outlying areas. Seventeen more such buildings are planned.

The following counties participated in the State Arthropod Control Program during the year. Their budgets, primarily for the control of mosquitos, were:

Alachua	$ 22,068.50	Levy	$ 8,000.00
Bay	50,400.00	Leon	25,000.00
Bay (Gulf Beaches)	28,563.39	Madison	1,100.00
Brevard	292,667.00	Manatee	37,807.89
Broward	55,000.00	Martin	24,714.61
Bradford	7,410.00	Monroe	91,597.04
Calhoun	3,250.00	Nassau	39,066.65
Charlotte	18,000.00	Orange	64,800.00
Citrus	39,597.75	Okaloosa	16,388.05
Collier	29,980.96	Osceola (Kissimmee)	4,500.00
Dade	183,904.00	Palm Beach	154,250.00
Duval	58,749.32	Pasco	15,151.21
Escambia	68,926.67	Pinellas	215,000.00
Flagler	12,146.11	Polk	108,667.00
Franklin	9,000.00	St. Johns	36,000.00
Gadsden	1,505.00	St. Lucie	93,863.36
Gulf	19,500.00	Santa Rosa	13,500.00
Hernando	2,615.33	Sarasota	45,000.00
Highlands	3,720.00	Suwannee	6,176.27
Hillsborough	146,925.00	Taylor	3,770.00
Indian River	152,658.06	Volusia	180,754.00
Jackson	969.25	Wakulla	15,500.00
Lake	35,225.00	Walton	2,000.00
Lee	207,825.04	Washington	3,782.07
Lee (Ft. Myers Beach)	29,625.46	Total	$2,686,619.99

Enforce Structural **PEST CONTROL** Act.

There was a rise in the number of certified pest control operators in the state who hold degrees in entomology and related



fields. This was due to the law which requires that pest control firms hire reliable employees to represent them; customer demands for results; and the resistance of some pests to pesticides. The growth of the industry may be noted below:

	1955	1958
State Board of Health Licenses issued	202	228
Employees identification cards issued	1,013	2,152
Homeowner complaints investigated	110	97
Number of non-licensed questionable pest control operators investigated	34	5

Establish and Operate a MOSQUITO RESEARCH CENTER

The Entomological Research Center at Vero Beach received several new research grants during the year and in turn, expanded its activities. A Control Research Laboratory, to be built across the road from the Center, is a major objective for 1959.

Numerous research projects are under way (a brief survey of the major ones can be found in the April issue of Florida Health Notes). Activities range all the way from improving their actograph technique (recording photographs of insect movements), to setting up instruments to record continuously the water temperature in three depths of water in nearby streams, to attempting to determine the oxygen consumption of individual mosquitoes over short periods, to testing new mist-dust blowers for killing mosquitoes, to doing "midge" research at Winter Haven. The ERC is a unique institution and is visited by experts in the field of insect control from all over the world.

LABORATORY SERVICES

As in previous years, the Laboratory (the Central and 6 regional ones) offered a wide variety of diagnostic services which are available to all physicians to use in their patient's behalf—free of charge. Approximately 2,500,000 examinations were done in 1958

on 1,250,000 specimens. The growth of Florida's population means more people—therefore more tests to be done. For example, when one person was added to the staff of the Pensacola laboratory, 14,850 dairy samples were tested as compared to 6144 the preceding year.

Many special studies were done. Probably the most dramatic was the development of "fluorescent antibody procedures for the detection of rabies virus in tissues." This procedure allows a diagnosis of rabies to be definitely made in about 6 hours—as against several weeks that are now required.

Supervise Sanitation of **MILK PRODUCTS**

More than 50,000 gallons of milk shipped in from out-of-state were rejected. It was made clear to all who shipped milk into the state that they had better check the milk at its point of origin to make sure it meets Florida's high standards.

Ten-gallon milk cans have been practically eliminated by the larger milk producers and stainless steel cold-wall tanks are being used. . . . There is a growing popularity of "cash and carry" milk sales following decontrol of consumer milk prices. Such methods of handling milk call for closer sanitation supervision by local health departments. . . . A few figures give an idea of the State Board of Health activities in this field:

Dairy farm inspections	760
Processing plant inspections	86
Ice-cream plant inspections	14

Collect **VITAL STATISTICS** and Issue Certificates

The collection of vital records is more complex than many people realize. Vital records, in this report, include births, stillbirths, marriages, divorces and deaths. Last year 108,050 requests for certified copies of birth certificates alone were received by the State Board of Health.

In 1958, 4530 adoption decrees were received for processing. Many people do not know that when a child is adopted a new birth certificate can be filed showing the new mother and father of the child. The original birth certificate then is sealed in an envelope and filed. This envelope can only be opened by court order or on request of the child when he reaches legal age.

Heart disease remains the principal cause of death. The second leading cause is cancer.

There were 34,569 marriages; 17,604 divorces and annulments in Florida last year.

Offer Services for the Promotion of Improved **NUTRITION**

A "Diet Manual for Nursing Homes" was made available to the many such homes that operate in Florida. A total of 111 institutions requested help from the 4 regional nutritionists. Groups, such as public health nursing staffs, womens clubs, etc., requested 226 conferences; there were also 560 conferences with individuals. Many programs were presented to civic clubs and PTA groups; assistance was given with exhibits for fairs; the staff participated in state and county school lunchroom workshops.

There was an increase in interest in the role that nutrition plays in the control and treatment of chronic diseases and more thought is being given to proper diet for our older citizens.

HEALTH EDUCATION

The State Board of Health has a responsibility to see that the public is kept informed about disease problems in Florida as well as other conditions detrimental to their physical and mental health. The emphasis is always on prevention. This is done in many ways: the Audio-Visual Library saw an increase in services as 5586 aids were circulated which were viewed 12,528 times by audiences totaling over a half million people. Twelve movies were furnished TV stations with an estimated audience of well over a million

viewers. . . . An exhibits consultant made 420 contributions to better health (exhibits, posters, signs, etc.). . . . Florida Health Notes, published continuously since 1892, reached a circulation high of almost 14,000 readers. Subjects covered in 1958 were poison control centers, aging, mental retardation, garbage, home accidents, premature babies, migrant agricultural workers, tetanus, tuberculosis, and a simplified annual report. . . . Over 250,000 pamphlets were distributed; approximately 50 news releases were prepared; orientation programs conducted; 28 foreign visitors from 16 countries received; talks made to numerous groups and assistance given with the education of teachers in the field of health.

Coordinate Medical Activities in the **CIVIL DEFENSE** Program

Tables of organization have been prepared for each of the 6 civil defense operational areas as well as for the State. These include nurses, physicians, dentists, pharmacists, hospital administrators, undertakers, etc. These persons would be concerned with the care of casualties and illness as well as preventive medical needs in case of disaster—natural as well as enemy attack.

PROFESSIONAL EDUCATION

As a result of the public's increased concern in better health, there is an increased need for persons trained in the medical and health professions. The State Board of Health administers certain scholarship programs, acting upon recommendation of appropriate advisory committees.

In 1958, 15 medical scholarships were granted (since 1955, 30 others have been awarded). Each student who receives such as-

sistance promises to practice in the state for a specified length of time when his education is finished. . . . Dental scholarships totaled 9, (since 1955, 30 others have been awarded) . . . . Assistance in the form of scholarships or stipends was given to 35 successful applicants in the field of mental health: physicians, psychologists, nurse social workers. . . . Specialized postgraduate training for public health workers was provided for 2 health officers, 4 public health nurses, 5 sanitarians, 1 mental health worker, 1 bioanalyst and 1 clinical psychologist.

The Medical Library circulated 1735 books, 8834 journals, 70 pamphlets, 29 microfilms, 59 photostats; answered 2540 reference inquiries; compiled 25 bibliographies; added 785 books to its collection bringing the total to 15,031. The Medical Library is in constant use by doctors, nurses, technicians and students, not only from the Jacksonville area, but also from over the entire state.

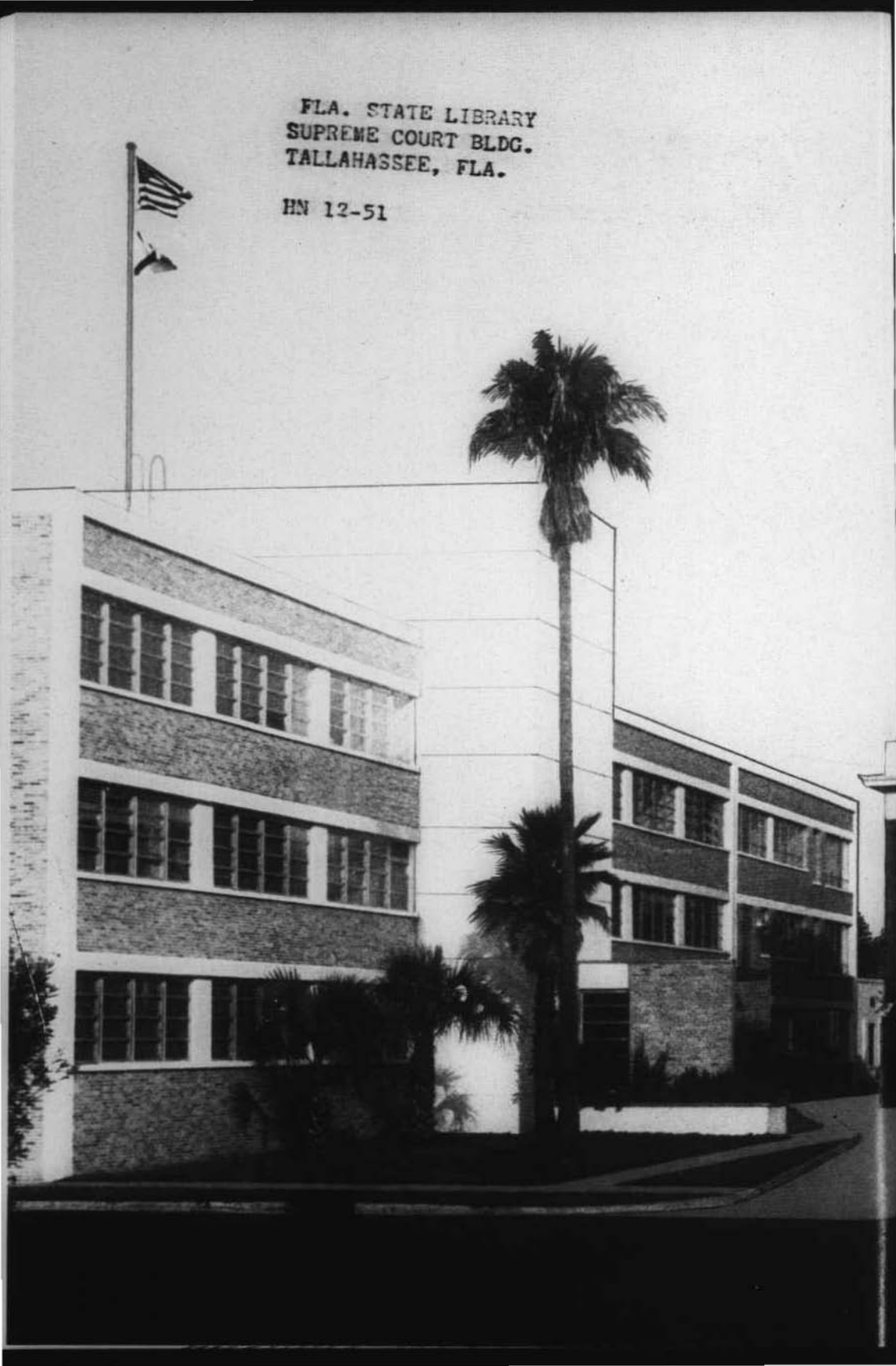
A number of Seminars for professional persons were held over the state. Among these were conferences on diabetes, heart disease, obstetrics, etc.

Throughout the Annual Report there runs the cry "With over 200,000 new people moving into the state to live each year, we must have more staff and facilities to serve our citizens." It stands to reason that when you multiply the number of people, you multiply the problems of daily living, health included.

FLORIDA STATE BOARD OF HEALTH

1217 Pearl Street or P. O. Box 210
JACKSONVILLE, FLORIDA

FLORIDA HEALTH NOTES published by Florida State Board of Health since 1892



Florida HEALTH NOTES

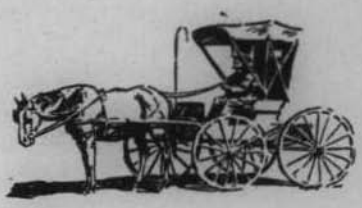
VOLUME 51 • NO. 7
SEPTEMBER, 1959

OUR EARLY DAYS

OUR FAMILY ALBUM

FLORIDA HEALTH NOTES

Published monthly except July and August on the 5th of the month by the Florida State Board of Health. Publication office, Jacksonville, Fla., headquarters of the State Board of Health. Entered as second class matter, Oct. 27, 1921, at post office, Jacksonville, Fla., Act of Aug. 24, 1912. It is intended primarily for individuals and institutions with an interest in the state health program, public and private. Permission is given to quote any story. Clipping of quotations or excerpts would be appreciated.



our early days

CAN YOU REMEMBER "Grandma" draped in her Paisley shawl eagerly crocheting an antimacassar for the back of her favorite rosewood chair? Or maybe you can recall leaning against the red and white striped pole in front of the barber shop while inside "Grandpa" was being lathered from his own ornate shaving mug?

Grandmother was proud of her hand-carved rosewood chair. She had had it since her wedding day. And Grandfather was equally proud of his decorated shaving mug. His name was written on it in curling gold letters, the same name as his father, his grandfather and great-grandfather.

We too are proud of our heritage at the Florida State Board of Health — the lantern slides, the handwritten minutes of the first Board meeting, the early birth and death record forms and countless other items. Many of these have recently been "rediscovered" under the eaves in one of the State Board of Health buildings on Pearl Street. A wooden packing case, marked "For Posterity," contained general correspondence of the Board for nearly 30 years, beginning in 1900. The material includes signed letters from almost every state executive officer of Florida, including most of the Governors. Much of it had never been seen by the present administration of the State Board of Health and it constitutes almost a complete written record of the arguments, discussions and actions of the beginning years of Florida's health history.

We know now that for 16 years (before its actual establishment) there had been repeated attempts by Governors, legislators and interested individuals to establish a State Board of Health to assure uniform health and sanitary regulations in Florida. In 1873, a legislative bill had been introduced to provide an appropriation of $200 for a health program but it was de-

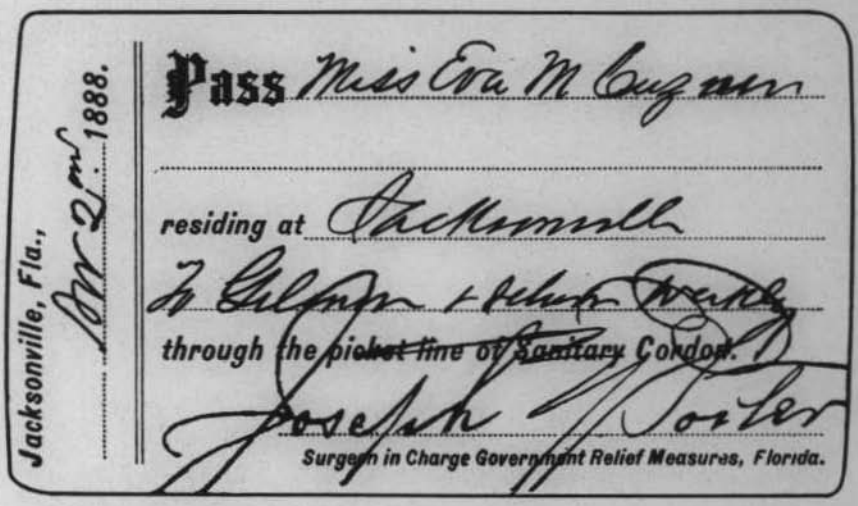
feated mainly because the amount was considered exorbitant! Two years later, Dr. John P. Wall, of Tampa, advocated legislation along the same lines and was named to a committee by the Florida Medical Association to study health boards of other states. In 1877, Dr. T. M. Palmer, of Monticello, through his connection with the Association, recommended a health plan but to no avail. In 1879, an appropriation of $1500 was sought in the legislature but was not allowed. Afterward, a succession of unsuccessful attempts were made by Governors William D. Bloxham and Edward A. Perry, Dr. R. B. Burroughs, of Jacksonville and Tampa, Dr. N. D. Phillips, of Gainesville, and Dr. J. W. Hicks, of Orlando. Twice a plan was introduced in the state legislature of 1887 but both failed. It was not until a yellow fever epidemic occurred, crippling the economy of all of Florida, that a concerted effort was made to unify public health regulations.

Yellow Fever

ACCORDING TO GEORGE AUGUSTIN in *History of Yellow Fever* the first appearance of the disease in Florida was at Pensacola in 1764. Waves of the fever spread over the state repeatedly with hundreds of lives lost. In 1874 Pensacola was struck again and 354 deaths resulted among the 1400 residents remaining in the city. Three years later Fernandina had an epidemic and only 100 of the 1600 population escaped yellow jack. Many of the victims died.

Then, in 1888 the fever broke out in the southern part of the state and spread rapidly, culminating in a paralyzing epidemic in Jacksonville. To avoid the fever, which recurred every summer, those families who could afford to do so always moved to the northern states. This epidemic was so much worse than previous years, however, that nearly 10,000 other persons were evacuated. All of the 5,000 who remained contracted the fever and more than 400 died.

Jacksonville was temporarily a ghost city. Stores were boarded up, hotels closed, social activities ceased and even mail deliveries were discontinued for a time. Cordons of men afoot and horseback, armed with rifles and carrying yellow flags, stationed themselves at roads leading to the city, preventing anyone from entering or leaving without proper authorization.

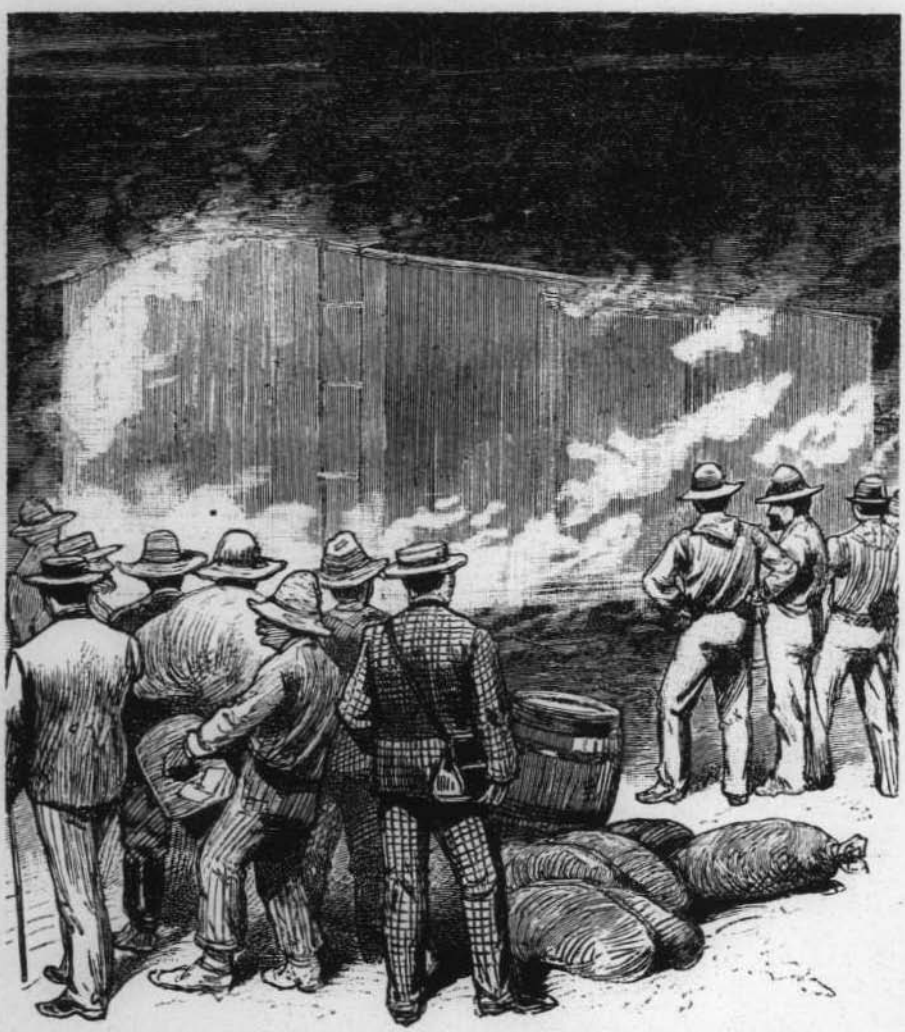


Pass card issued November 2, 1888, to Miss Eva M. Cuzner who was employed in Jacksonville but returned each weekend to her home in Gilmore, ten miles distance. Miss Cuzner later married William F. Hawley and their daughter, Mrs. May Kenyon, who now has possession of the card, resides in Arlington.

Mail Fumigation

Outgoing Jacksonville mail was thought to carry "fomites" as the yellow fever germs were called. An elaborate system of fumigation was set up in a railroad boxcar on a siding outside Waycross, Georgia. Rows of chicken wire were strung the length of the car and letters and newspapers, with loosened wrappers, were spread thereon. Sulphur in iron pots on the floor was ignited, the door to the car sealed and the fumigation process continued for six hours. Over two and one-half million pieces of mail were fumigated at the Waycross station. Occasionally today a family trunk yields letters and envelopes with 16 punched holes as the result of being struck twice by a wooden mallet studded with eight protruding nails. These openings were thought to let in the sulphurous fumes and so cleanse the letter.

No mail cars were routed through Jacksonville. The northern mail for the city was brought to Callahan and sent in by pouch while the western stopped at Baldwin and the incom-



Fumigating mail car from Jacksonville at Waycross, Georgia

ing south mail was dropped at Orange Park. St. Augustine had a fumigation station two miles north of the city for all outcoming Jacksonville mail and other stations were set up temporarily at LaVilla Junction, a Jacksonville suburb; Chattahoochee; Live Oak; and DuPont, Georgia.

Mail fumigation began August 11 and was discontinued December 17, 1888. During this time the floor of the Jacksonville post office was sprinkled daily with carbolic acid and one mailman was reported to have put a handful of sulphur in each shoe while making deliveries.

Concussion Theory

The story goes that in 1877 in Tennessee it was noted that negroes in their one-room houses lighted a minute amount of gunpowder to dispel mosquitoes. And thus the concussion theory was born.

In Jacksonville in 1888 the first experiment was tried August 14 at seven o'clock. Fifty rounds of ammunition were fired in the city streets by three guns. Charles S. Adams writes in *Report of the Jacksonville Auxiliary Sanitation Association,* "... the general topic of conversation on the streets and at the firesides was regarding the results of the concussion theory; what the microbes were, and how they were killed."

An amusing incident was recorded by Adams when he related that one evening a negro walked within 30 feet of one of the cannon when it was fired. He was bombarded with a discharge of sand and believing he was being struck by yellow fever germs cried, "Great Lord, how thick they falls."

The experiment was abandoned quickly, however, as it proved disturbing to the sick and the vibration resulted in many broken windows.

The Jacksonville quarantine, declared in mid-summer, was not lifted until December 15 after several low temperature recordings and heavy frosts killed the *Aedes aegypti* mosquito which we now know transmits yellow fever.

"Doctor Porter was . . . one of the pioneer State Health Officers concerned with the abolishment of the common drinking cup on (railroad) cars . . . Dr. S. T. Crumbine, Executive Secretary of the Kansas State Board of Health in March 1909, was the first to get legal regulation within his State abolishing the common drinking cup on trains and in schools. Dr. Porter followed . . . (his example) shortly. . . ."

". . . Florida was the first State to adopt the Standard Railway Sanitary Code in February 1920. This basic code on railway sanitation requirements was later adopted by forty-one of our States, and applied in practice by the remaining six."

Excerpts from a letter of August 18, 1958, written by Dr. Robert M. Graham, Director, Department of Medicine and Sanitation, The Pullman Company, Chicago, Illinois.

Florida State Board of Health

The year of the epidemic, 1888, was also a political campaign year and candidates for office were inconvenienced in their travels by having to obtain health cards testifying to their immunity to yellow fever, or, as an alternative, to spend ten days in detention camps established by some county boards of health as precautionary measures. Also, each county board of health had varying regulations geared to their own individual location, trade, population, etc. Political caucuses and undercover or "gumshoe" campaigns were difficult to arrange and sometimes caused great confusion.

Then Governor Francis P. Fleming stepped into the picture. As one of his first official acts after assuming office he called a special session of the legislature on February 5, 1889, to establish a State Board of Health for promotion of controls in case of a repeat epidemic.

Accordingly, on February 20, 1889, approval was given a bill providing for a three-member board. Subsequently, the Governor named Dr. Richard P. Daniel, of Jacksonville, who was chosen President; William B. Henderson, of Tampa; and William K. Hyer, of Pensacola. These three promptly designated Dr. Joseph Y. Porter, of Key West, State Health Officer and Executive Secretary. The legislature provided that the Board and its program would be financed by a one-half mill property tax.

Our Board Presidents

R. P. Daniel, M.D., Jacksonville, 1889-1890
W. B. Henderson, Tampa, 1891-1900
E. M. Hendry, Tampa, 1901-1912
Frank J. Fearnside, Palatka, 1913-1916
C. T. Frecker, Tampa, 1917-1919
Joe L. Earman, West Palm Beach, 1920
Calvin T. Young, M.D., Plant City, 1921-1924
Charles H. Mann, Jacksonville, 1925-1929
H. Mason Smith, M.D., Tampa, 1930-1932
N. A. Baltzell, M.D., Marianna, 1933-1939
Shaler A. Richardson, M.D., Jacksonville, 1940-1941
Herbert L. Bryans, M.D., Pensacola, 1941-1955
Charles J. Collins, M.D., Orlando, 1955-

Joseph Y. Porter

"What you have done in health matters has been a state pride and an object lesson to the nation. I have felt a laudable pride in being one of your trusted employees and felt proud to work under your leadership. I know well the difficulties and disadvantages under which you have labored as well as the great strain it has been . . . none but those close to you can ever realize the debt of gratitude humanity owes to you."

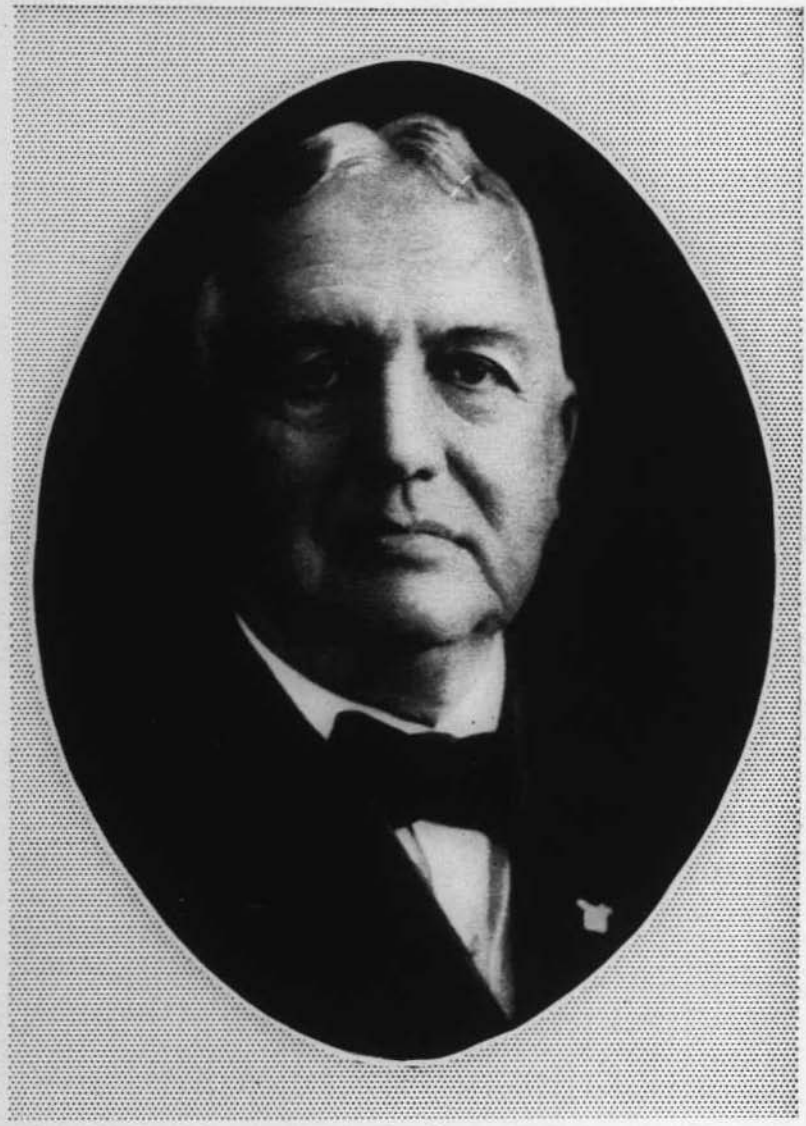
So wrote one of Dr. Porter's "trusted employees." But he was not alone in his commendations of a man who served 28 consecutive years as State Health Officer. Both houses of the Florida legislature lauded Dr. Porter for his gratuitous service to the city of Jacksonville during the yellow fever epidemic of 1888 . . . the U. S. Army honored him with a commission as Lieutenant Colonel although he had been on an inactive status for years . . . the Medical Corps of the Army appointed him to active duty at Camp Johnson in Jacksonville in 1917 even though he was 70 years old at the time . . . the people of Monroe County chose him as their representative to serve in the legislature.

Suffice it to say, Dr. Porter's efficiency was unquestioned and besides, throughout his 19 years as surgeon in a military career and long tenure of office for the Florida State Board of Health, he was considered a real human being. Employees who worked with Dr. Porter remember him as kind, friendly and willing to listen to their personal problems. His grandson, Joseph Y. Porter, IV, stated it aptly at the dedication of the J. Y. Porter building in Jacksonville in February 1959, when he referred to his grandfather as, " . . . the man I knew simply as 'Big Joe.' "

Accomplishments of this native son included advocating the education of the public in health matters. In 1892 he had a major hand in revising the rules of the State Board of Health and is purported to have said, "The day is close at hand when security of human life will be recog-

---

Joseph Y. Porter, after whom the J. Y. Porter building in Jacksonville was dedicated this year, was born in Key West, Florida, October 21, 1847. He received his early schooling in Burlington, New Jersey, and in 1870 was awarded a Doctorate in Medicine by the Jefferson Medical College of Philadelphia, Pennsylvania. The year of his graduation he was appointed acting assistant surgeon of the U.S. Army and was assigned to Fort Jefferson in Dry Tortugas where the martyred Dr. Mudd had served so nobly. For 19 years he was in the Medical Corps of the Army. Dr. Porter died March 16, 1927, in Key West in the same house and the same room in which he had been born 80 years before.



JOSEPH Y. PORTER, M.D.

First State Health Officer, 1889-1917

nized for what it is—the real basis of all values."

In July of that same year he introduced *Florida Health Notes* and wrote in an editorial, " . . . the hope is expressed that it may be the means of stimulating an interest in sanitary matters, not only with the masses, but that it will arouse those who are charged with the protection of the public health in the counties to active measures."

His theories on health education spread over into the schoolroom where he recommended annual medical examination for all schoolchildren, higher or lower seat adjustments to fit the individual, better seating arrangements and discontinuance of the folded arm stance while reciting. Dr. Porter believed all these would correct the posture and vision of children and make them happier individuals. Also, mental health training was suggested for teachers in public schools.

The gathering of vital statistics was considered most important by him. In 1892 he wrote, "An intelligent compilation of the phenomena of human life contained in a birth, marriage and death enumeration, with the causes of death, constitute a health history as well as a politico-economic history of a community or State, which will appeal to the careful consideration and study of an intelligent public both at home and abroad."

And so, he had a rubber stamp manufactured, "Have you reported?" and had the imprint stamped on each issue of *Florida Health Notes.*

Forseeing tourism he wrote, "Only by the perpetuation of a Bureau of Vital Statistics will we ever be able to know whether life is growing longer or shorter in Florida, or show the world what Florida has to offer towards support of a claim for the longevity of her citizens."

During his tenure of office he studied tuberculosis and recommended isolation of infected persons. Probably as an outgrowth of this survey the Public Health Nursing program was organized in 1914.

He demonstrated at a yellow fever epidemic in Pensacola in 1905, for the first time in the United States, the theory which had been announced and accepted internationally, that the *Aedes aegypti* mosquito was a yellow fever transmitter.

Dr. Porter espoused pre-marital and prenatal examinations, better water supplies and sewage systems and encouraged study programs to control hookworm and cancer. He recommended aid to crippled children and through his efforts the legislature in 1911 authorized the State Board of Health to build a hospital and give free treatment to indigent crippled children.

In recognition of his gratuitous services to the city of Jacksonville during the yellow fever epidemic of 1888, Dr. Joseph Y. Porter was presented the above pictured Swiss watch.

The gold timepiece is an Audemar minute repeater in a plain case, having on the smooth face the letter "P" encrusted with diamonds. The inside engraving, completed in New York, states: "Presented to Joseph Y. Porter, M.D., Surgeon-in-Charge, United States Government Relief Measures, by the Jacksonville Auxiliary Sanitary Association in recognition of valuable services to the citizens of Jacksonville, Florida, during the yellow fever epidemic of 1888."

The cable link chain has a gold anchor bar from which hangs a pendant in the shape of a gold life preserver encircling a star of diamonds. On the charm face there is inscribed: "In recognition of Services, Epidemic, 1888." On the opposite side there is written, "Jacksonville Auxiliary Sanitary Association."

The latter words encircle the initial "P" set with rubies and diamonds. The life preserver charm was fashioned after a life preserver borrowed for this purpose from the yacht, "Dauntless" *once owned by James Gordon Bennett. The watch strikes the minutes, quarters and hours.*

Money was not available for complete operation of the program but much work was accomplished for needy youngsters. He fought for compulsory vaccination against smallpox and evidenced interest in veterinary medicine in regard to diseases transmissible from animals to man. He established examinations and regulations for funeral directors and embalmers.

As State Health Officer for 28 consecutive years he instituted hygienic and sanitation reforms which were farsighted and opportune even for today. It is doubtful if the State Board of Health would have advanced and flourished without his guiding hand. During his life, Dr. Porter fought not only against ignorance of health practices but struggled with a heart ailment which had forced his retirement from military services long before he entered the public health field.

State Board of Health Property

Florida State Board of Health offices were first located in the Law Exchange Building, destroyed by the devastating fire of 1901 in Jacksonville. Later, the Dyal-Upchurch Building became the home of the staff with laboratory space located nearby. The "newly discovered" correspondence of the Board reveals that for several years there had been attempts to secure permanent quarters but it wasn't until February 1911 that a tract of land, known as Raspberry Park, bordering Hogan's Creek and the present site of the property, was deeded to the State. The land was purchased for $100 and in 1912 a $40,000 building was completed. Dr. Porter and his employees were the first occupants. It was in the attic of this building that the "rediscovery" was made.

Florida State Board of Health Uniforms

In 1905 the Board decreed that Assistants to the State Health Officer should have three types of dress. The one most commonly worn was of navy blue cloth or serge, trimmed with black braid, having a grade mark on the sleeve for classification of office. The trousers and waistcoat were of the same material and the patent leather visored cap was held in place with a gold-wire lace chin strap. "An oil silk cover may be worn (over the cap) in foul weather." The coat of arms of the State of Florida was embroidered on the front of the cap.

In summer, officers wore a white uniform of similar design but with white braid. While on field work the Assistants could change to khaki cotton or olive drab wool serge.

The waistcoat was to have "seven small State Board of Health of Florida buttons (like that pictured above), the upper one to be not more than four inches below the collar button in the neckband of the shirt." The gilt, convex buttons of two sizes, seven-eights and nine-sixteenths of an inch in diameter, were of the same style as those used by the State Militia but with the lettering, "State Board of Health—Florida—" in raised die encircling the state seal.

County Sanitary Agents wore similar uniforms with slight variations in braid and Sanitary Patrolmen and Guards wore a sack coat of navy blue cloth or serge fitted to the figure. The latter had lettered monograms of their office on the front of their caps. All were allowed to wear khaki uniforms while on special duty in the country and from April to October white or brown linen suits with white straw hats.

Despite Dr. Porter's repeated appeals to wear the uniforms, he met strong opposition. In 1908 he referred to the garb as that of a "Spanish Admiral" but despite his facetiousness he wrote, "It seems to impress the dignity of the position which they hold upon the people and tends to enforce without friction the rules and regulations of the Board, especially those in regard to sanitary or unsanitary nuisances and the control of contagious diseases."

County Health Departments

In 1881 the Florida legislature passed an act establishing boards of health in towns of over 300 inhabitants and four years later the constitution provided for county boards of health "where necessary." The confusion caused by non-uniform county regulations in the yellow fever epidemic of 1888 proved the boards inoperable and amendments were made several times to the law before the boards were abolished in 1893. The latter action was taken to alleviate the costs and give sole management to the State Board of Health who appointed agents to report monthly the health conditions and cases of communicable diseases in their individual areas. After a seesaw existence of many years, in 1931 the legislature passed an act authorizing the establishment of county health departments under the supervision of the State Board of Health. There are now 66.

FORM 15.

INSPECTION OF VESSELS ARRIVING

— AT THE —

Port of Key West Fla Aug 7th 1891

1. Name and class of Vessel?
S. S. "Comal"
2. Name of Captain or Master?
John Rick
3. Tonnage of Vessel?
225 1 net
4. From whence is the Vessel you command?
Galveston
5. How many days have you been on the passage?
2 1/2
6. At what port or ports have you touched within the last 90 days?
Ky. Galveston and New York
7. Were any contagious or infectious diseases prevailing at those ports?
No
8. If so, name the ports and diseases.
—
9. Was any freight or passengers received at the ports at which your Vessel touched?
Yes
10. If so, give particulars.
Regular trade
11. Have you a bill of health?
Yes
12. During the course of your cruise or passage, what cases of disease have occurred on board?
No
13. At what date?
—
14. Have any deaths taken place on board your Vessel since you left the last port?
No
15. If so, what dates, and from what causes?
—
16. Are there any sick on your Vessel at this time?
No
17. Has yellow fever, small-pox, cholera or plague ever existed in this ship?
No
18. If so, when?
—
19. What is the number of officers and crew?
50
20. What is the number of passengers?
44
21. What is your cargo, and to whom consigned?
General Merchandise. R.M. Smithwick Agt
22. If in ballast, what is the character of the ballast, where was it taken from and how many tons have you on board?
—
23. What is the present sanitary condition of the Vessel, cargo, crew and passengers?
Good
24. Produce the report of the medical officer, if any.
—

John Rick Master.

Remarks of the Port Sanitary Inspector:

NOTE.—Make in duplicate and send certified copy to the Secretary of the State Board of Health at Jacksonville, Fla.

After establishment of the State Board of Health, ship inspection was still maintained but special forms were printed like that pictured above.

Ship Quarantine

Before the establishment of the State Board of Health each port city handled its own quarantine inspection of visiting ships. Boards of health named by city officials or county commissioners appointed port inspectors or resident physicians who

determined the cleanliness of ships, health of passengers and the extent of quarantine. Such boards operated at the main entries: Fernandina, Jacksonville, St. Augustine, Key West and Pensacola. The practice was to have a vessel anchor in the harbor near a buoy, flying yellow flags. A port inspector or physician then boarded and passed judgment on the ship, cargo, ballast, crew and passengers. An adverse report was cause for a thorough disinfection.

The diseases most feared were yellow fever, smallpox, dengue fever, plague, and cholera.

Bureau of Vital Statistics

County boards of health were authorized to collect vital statistics under an act of 1889 but the plan was inefficient and unreliable. In 1891 a recommendation for a similar collection was introduced in the state legislature but no action was taken. Eight years later the legislature adopted a measure like that of '89 but in 1906 the program was discontinued as published statements were found to be misleading and incomplete. A law for collecting vital statistics was passed in 1915 but did not become effective until 1917 when state-wide figures were published by the State Board of Health in their Annual Report. In 1919 Florida was admitted to the Registration Area of the U. S. Census Bureau for deaths and in 1924, births.

Dr. Stewart G. Thompson, who came to head the section in 1918, was largely responsible for the program functioning today which compiles valuable statistics on mortality, births, marriages and divorces.

Bureau of Laboratories

In 1900 at the annual meeting of the State Board of Health a recommendation for a bacteriological laboratory was considered but is was not until the session of August 1902 that plans for establishment were provided. Dr. Eduardo Andrade, noted scientist, was named the first Director of the Laboratory. When the work of the State Board of Health was divided into Bureaus in 1916 the laboratory and its branches became a part of the Bureau of Communicable Diseases. The Laboratory became a Bureau on its own in 1918. The primary purposes of the Laboratories are to aid in the diagnosis of communicable diseases, assist the epidemiologist in checking sources of infection which might or have led to epidemics, analyze food, water, milk, etc. for those groups interested in controlling diseases caused by bacteria therein.

Florida Health Notes

The first issue of *Florida Health Notes* was published July 1892 and for many years the editorial contributions and articles were written by Dr. Porter and his Assistant State Health Officer, Dr. Hiram Byrd. Three hundred copies were printed for the first issue but two years later the mailing list numbered over 2000 a month. This educational feature has been of great value down through the years in the dissemination of information bearing upon public health.

Educational Health Exhibit Train

In 1915 Dr. Porter conceived a plan, like that operating in Louisiana, to establish an Educational Health Exhibit Train. Three sleeping cars, the Brilliant, Oceanus and Elma, were obtained from The Pullman Company, furnished for $500 each and alterations made at a total cost of $8182. The cars were delivered in January 1916.

One car was equipped for living quarters and the other two contained health displays and motion picture equipment. The train, hauled without charge by the railroads of the state under special legislative act, ran on a regular schedule throughout Florida.

Following Dr. Porter's retirement in 1917 the train plan was abandoned and several years later the cars were sold to a carnival company.

NO ATTEMPT HAS BEEN MADE in this issue of *Florida Health Notes* to record the complete history of the Florida State Board of Health but only to highlight the first fifty years of organized public health. Histories of every bureau and division with their related activities to date would be more lengthy than space would permit. Hence, only the more prominent events have been emphasized with much of the subject matter being drawn from the "rediscovery" of Board correspondence. Those persons interested in the many facets of the State Board of Health program today can secure the June 1959 issue of *Florida Health Notes* which contains a review of the activities for 1958, by writing to the Florida State Board of Health in Jacksonville. Readers will find the material therein quite a contrast to the heritage items of yesteryear.

HENRY HANSON, M.D.

State Health Officer Who Served Two Terms

1929 - 1935
1942 - 1945

HENRY HANSON, for whom the central laboratory building in Jacksonville was named this year, was born in Glenwood, South Dakota, July 4, 1877. He received his Bachelors degree and Masters degree from the University of South Dakota and in 1908 was awarded his Doctorate in Medicine by Johns Hopkins University.

Dr. Hanson served the people of Florida for 16 years beginning in 1909 when he was named Director of the Division of Bacteriological Laboratories of the State Board of Health. During this period he established the first branch laboratories in Tampa and Pensacola.

Aside from his public health career in Florida he served as major in the U. S. Army Medical Corps and for 16 years was advisor on public health and tropical diseases to the governments of Central and South America. He was affiliated with the Rockefeller Foundation, Pan-American Sanitary Bureau, West Africa Yellow Fever Commission and the U. S. Public Health Service. For his distinguished work he was decorated by the governments of Peru, Paraguay, Ecuador and Cuba. He died in Jacksonville February 13, 1954, at the age of 76.

THE FIRST HOSPITAL established in the New World was in St. Augustine, Florida. When the Spanish Governor Ganzalo Mendez de Canzo arrived he wrote to King Philip II on February 23, 1598, that a hospital was under construction. The Governor indicated many soldiers and Indians had been treated for fevers at the institution the previous summer. He requested "Your Majesty" to declare the giving of alms to defray the 500 ducat deficit which hospital management had incurred. Also, Canzo recommended that one of the Royal negress slaves be assigned to the hospital to make beds, clean the rooms and cook delicacies for the patients. At this time there were about 300 troops and 400 others in St. Augustine.

From translations of letters in the collection of the library of the St. Augustine Historical Society, St. Augustine, Florida.

The chief animal diseases in Florida at the turn of the century were tick fever in cattle, glanders in horses and mules, black tongue in dogs and cholera in hogs. Through the use of lantern slides, one of which is pictured above, the veterinarians attempted to educate farmers in methods to eradicate the "Great Animal Diseases" as they were termed.

The tick problem was a "peoples' problem" and even teachers were encouraged in lantern slide shows to "Talk ticks to the pupils. See that the school library contains literature on ticks." Another exhorted viewers, "The sure way to get rid of ticks is by building vats and Dipping Cattle. When a dipping vat is built in your community make its first use a picnic affair. The people will enjoy it immensely."

Glanders in horses was not a new disease to Florida in this century for in Dr. Porter's writings there are many references to the fight against "glanders . . . caused by a bacillus."

Owners of canines were informed, "When your dog begins to lose appetite and his tongue and gums appear pale, get the State Board of Health to examine his excrement for hookworms, and tell you how to cure him of Black Tongue."

Did You Know that in —

1901—A fire in the city of Jacksonville destroyed the Law Exchange Building in which the State Board of Health offices were located and only the minutes book was saved.

1910—Dr. F. A. Brink, known for his horticultural pursuits in the Avondale area of Jacksonville where he now resides, was designated to head the Pensacola laboratory at this date.

1912—Frank M. Whiddon, recently retired as superintendent of buildings and grounds, began state employment in this year.

1913—Crippled Children's Act passed to give State Board of Health authority for treating orthopedic cases and 52 youngsters received treatment.

1915—Homer D. Venters, now director of the Tampa Laboratory, came to work for the State Board of Health this year making him the oldest employee in point of service.

1915—First chlorinated water system in Florida was established at Live Oak.

1916—George W. Simons, Jr., hired as the first sanitary engineer for the State Board of Health. Mr. Simons is now planning and zoning consultant in Jacksonville.

1916—Dr. Carroll Fox, of the U. S. Public Health Service, made an extensive survey of public health administration in Florida.

1917—E. F. H. Ganten began the printing department and still heads that section today.

1919—Florida was the second state in the United States to pass an act regulating sanitation of bathing places.

1912-25 — Colonel Raymond C. Turck, M.D., now a resident in Jacksonville, was State Health officer during this period.

1922—Florida Anti-Mosquito Association was formed.

1925-29 — Dr. B. L. Arms, State Health Officer during these years, celebrates his 90th birthday in Haines City, Florida, this fall.

1927—A law passed requiring drug stores to register with the State Board of Health and to have registered pharmacists on duty at all times.

And That in —

1929—Sam Newton, who retired this year, began on this date employment with the State Board of Health which included work as movie machine operator, chauffeur, bank messenger and mailman.

1930—State Board of Health officials fought for auto, tent and house trailer camp sanitation.

Early 1930's—Malaria Research Station of the State Board of Health and Division of Malaria Control Studies under the U. S. Public Health Service were established in Florida.

1931—Legislative act passed giving the State Health Officer full power in licensing and registering midwives.

1932—Rockefeller Foundation was generous and cooperative in aiding revival of State Board of Health Library.

1933—John A. Mulrennan was the first entomologist employed by the State Board of Health and heads that Bureau today.

1937—State Board of Health and Florida Medical Association combined forces in a survey of the state's high maternal and infant death rate.

1938—First State Tuberculosis Sanitorium was erected at Orlando.

1939—American Public Health Association recommendations promoted in Florida after a state-wide survey.

1939—Coordinated school health program sponsored by State Department of Education and the State Board of Health.

1940—Inauguration of State Merit System which included public health employees.

1941-42—Dr. William H. Pickett served as State Health Officer. Presently resides in Gainesville, Florida.

1944—Dr. George A. Dame, retired in 1958, began work in the local health service unit which grew by leaps and bounds during his administration.

1949—Introduction at Gainesville of the first Florida fluoridation program to prevent or reduce the incidence of dental decay.

BIBLIOGRAPHY

For those persons whose curiosity has been aroused to learn more of the details of public health history the following volumes can be secured from the *Florida State Board of Health Library*, Jacksonville.

Adams, Charles S. *Report of the Jacksonville Auxiliary Sanitary Association of Jacksonville, Florida. Covering the Work of the Association during the Yellow Fever Epidemic*, 1888. Jacksonville: Times-Union Print., 1889.

Annual Reports of the Marine-Hospital Service of the U. S. Beginning in 1875.

Augustin, George. *History of Yellow Fever.* New Orleans: Searcy and Pfaff Ltd., 1909.

Barton, E. H. *The Cause and Prevention of Yellow Fever at New Orleans and other Cities in America.* This book once the property of Dr. J. S. Murdock, first president of Duval County Medical Society. New York: H. Bailliere, 290 Broadway, 1857.

Byrd, Hiram. *Hookworm Disease.* Prepared under direction of the State Board of Health. St. Augustine: Record Company, 1910.

Dodd, Dorothy. *Florida The Land of Romance.* Tallahassee: The Peninsular Publishing Company, 1957.

Florida Empire of the Sun. Text by Carita Doggett Corse. Tallahassee: Florida State Hotel Commission, 1930.

Florida Health Notes. Bound volumes beginning in 1892.

Florida State Board of Health Annual Reports. Bound volumes beginning in 1889.

Fox, Carroll. *Public Health Administration in Florida.* Washington: Government Print. Office, 1916.

Guide to Public Vital Statistics Records in Florida. Prepared by The Florida Historical Records Survey Division of Community Service Program Works Projects Administration. Jacksonville: The Florida Historical Records Survey, 1941.

Hargis, Robert B. S. *Yellow Fever, Its Ship Origin and Prevention.* Philadelphia: D. G. Brinton, 115 South Seventh Street, 1880.

Merritt, J. Webster. *A Century of Medicine in Jacksonville and Duval County.* Gainesville: University of Florida Press, 1949.

"A History of Medicine in Duval County," *Journal of the Florida Medical Association*, September 1945.

..... and Lowenthal, Joseph. *Duval County Medical Society's hundredth birthday, 1853-1953.*

Porter, Joseph Y. "Additional Scraps from Memory's Storehouse of Sanitary Deeds in Florida during the Past Half Century," *Journal of the Florida Medical Association*, August 1926.

"Looking Backward Over Fifty Years of Health Work in Florida," *Journal of the Florida Medical Association*, July 1925 to January 1926.

"Prevention of Contagious Diseases," address to property-owners, house-holders and all citizens of Florida, dated August 1, 1905, Jacksonville, Florida.

"Reports of Yellow Fever Epidemic in Key West, November 30, 1875, and December 31, 1878."

Sowder, Wilson T. "Progress in Public Health in Florida," *Journal of the Florida Medical Association*, April 1949.

"Symposium on Yellow Fever Management," papers read before the Florida Medical Association, April 1906. Porter, Joseph Y.: Management of Epidemics. Byrd, Hiram: Rational Quarantine. Banks, Charles Edward: Detention Camps in Epidemics of Yellow Fever.

"The Health Situation in Florida, 1939," report of a study made by the American Public Health Association, 50 West 50th Street, New York.

"The Spanish Missions of Florida," compiled by workers of the Writers' Program of the Works Projects Administration in the State of Florida, 1940.

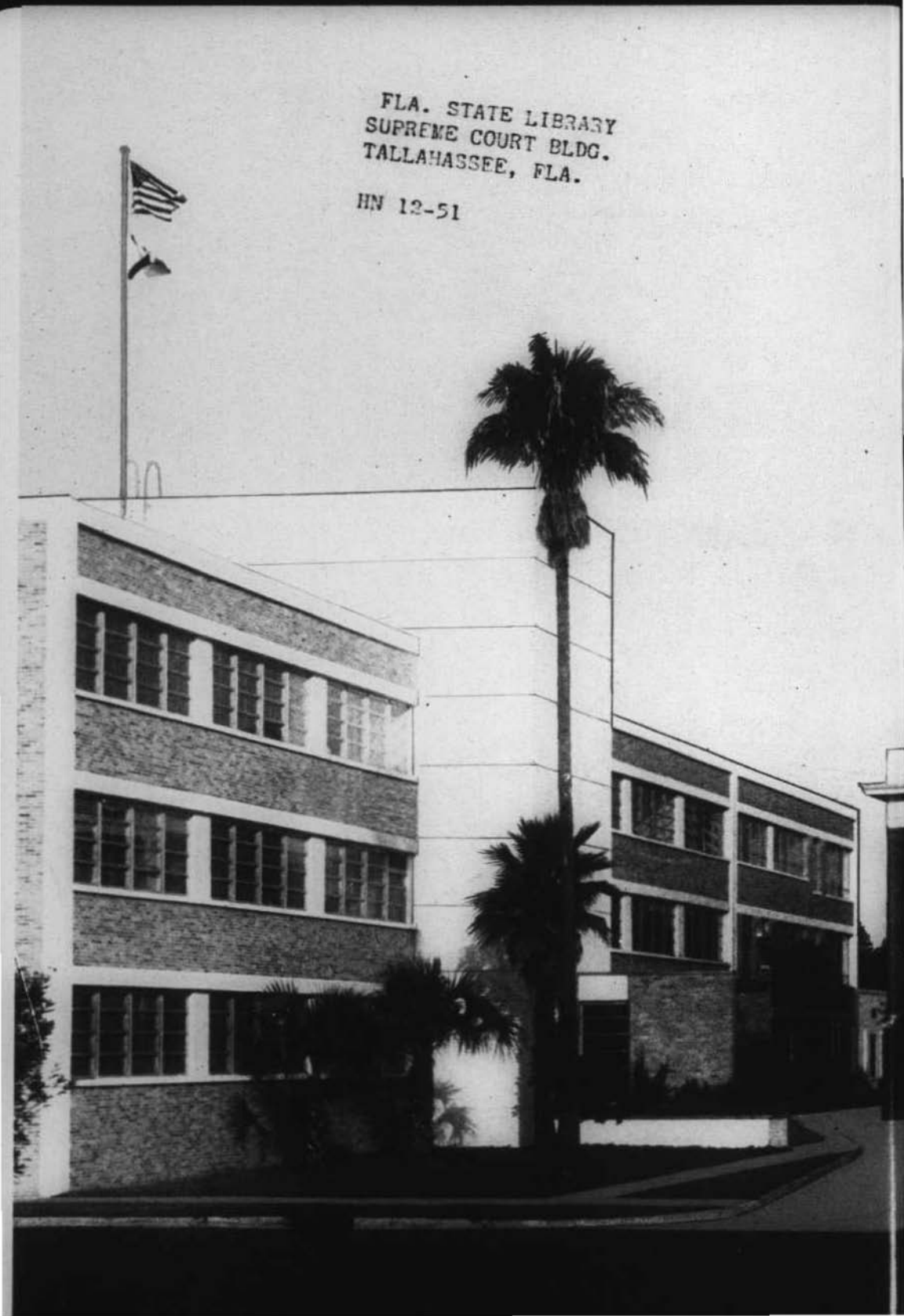
"Transactions of the First Annual Conference of State and Territorial Health Officers with the U. S. Public Health and Marine-Hospital Service," Washington: Government Print. Office, 1903.

FLORIDA STATE BOARD OF HEALTH

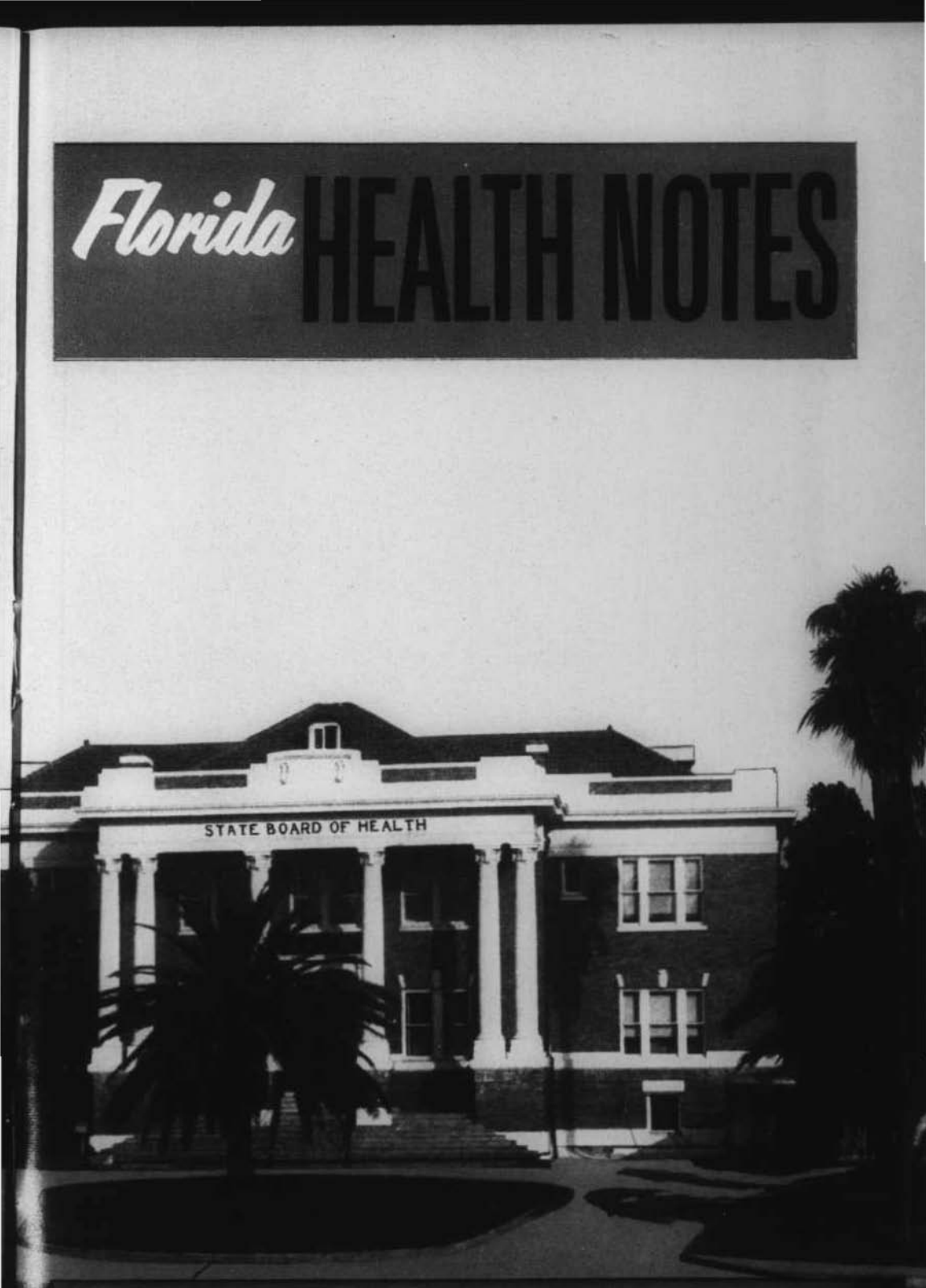
1217 Pearl Street or P. O. Box 210
JACKSONVILLE, FLORIDA

All Counties in Florida have organized county health departments, except St. Johns County

FLORIDA HEALTH NOTES published by Florida State Board of Health since 1892



Florida HEALTH NOTES



VOLUME 51 • NO. 8
OCTOBER, 1959

FROZEN FOODS

Gleaming display cases present the housewife with a choice of the finest frozen foods. A constant flow of sub-zero air circulates about the packages and cartons, maintaining the desired low temperatures.

Frozen Foods

Foods which have been frozen are found on practically all tables today. The quick-freeze method of preserving food with its fresh flavors and tastes has mushroomed into one of the nation's large industries. Since your health is involved with the foods you buy it becomes a concern of the Florida State Board of Health and your County Health Department to see that frozen foods are prepared in clean plants and are transported and stored under proper conditions. Since danger of food poisoning is present in some of these foods, just as it is in many non-frozen foods, the public interest must be guarded. We have joined hands with the processors, shippers, storage companies and retail merchants to try to reduce to a minimum the health problems concerned with frozen foods.

Frozen foods are often confused with *refrigerated* foods. This is due, no doubt, to the fact that the supermarkets often display them side by side in gleaming cases that look identical to the naked eye. But *refrigerated* foods, such as milk, cheese, cream and similar products are not frozen prior to sale. The temperature of these display cases is kept above the freezing level of the products involved; the cold keeps them safe from bacterial action and they are tasty when purchased and eaten.

FLORIDA HEALTH NOTES

Published monthly except July and August on the 5th of the month by the Florida State Board of Health. Publication office, Jacksonville, Fla., headquarters of the State Board of Health. Entered as second class matter, Oct. 27, 1921, at post office, Jacksonville, Fla., Act of Aug. 24, 1912. It is intended primarily for individuals and institutions with an interest in the state health program, public and private. Permission is given to quote any story. Clipping of quotations or excerpts would be appreciated.

Prevention . . .

Police departments try to prevent crime: fire departments try to prevent fires and public health departments try to prevent disease. That's why we're so interested in such things as frozen foods. The health factor is not too big in this business, but anything that might prove detrimental to the well-being of Florida's citizens is our concern.

Frozen foods, on the other hand, are foods which were quick frozen at the processors at temperatures from 20° to 40° below zero which seals in the flavor. They have been maintained at temperatures generally well below the 0° level. To remain palatable these foods must always be kept at very low temperatures.

Many housewives go to farmers' markets and purchase fresh vegetables, fruits and other seasonal foods when they can get them when they are freshest — and cheapest. These are often placed in freezers at home and used during the year when these items are not readily available at neighborhood stores. These same housewives also purchase such frozen foods as meats, seafoods, vegetables, fruit juice concentrate, sandwiches and prepared meals such as the popular packaged dinners.

What's the Problem?

Just what is the problem of safe frozen foods in Florida? Strangely enough, it is not primarily one of safe transportation. True, Florida's climate is often warm and humid which makes for some difficulty in moving frozen foods from one place to another while maintaining the extremely low temperature desirable for quality taste. And Florida's winter temperatures do not often drop below freezing (even in the northern part of the state) and remain there for any length of time. If they did, it would greatly simplify the transportation problem. But the transportation industry has risen to the challenge and we find trucks and rail cars equipped with freezer systems that maintain the desired temperatures. So, in the final analysis transportation of frozen foods in Florida is not one of the major problems.

Food stores maintain large storage freezers for their stocks of frozen foods. They exercise caution to see that their freezing system is always properly working for they appreciate the loss in money that would result from a poorly operating freezer. They transport their products in refrigerated trucks and insist that these foods be immediately placed in freezers at the stores. As we shall see later on in this issue of *Health Notes,* food processors often check handling methods to insure that thawing and re-freezing do not result.

Preventing frozen foods from being a health problem begins back at the processors. Quality of foods to be frozen must be high to begin with. Health department officials have drawn up regulations governing the proper sanitation methods under which the processor should operate. His establishment must be clean and the foods must be prepared under specific directions to insure health safety. The meats he uses are inspected and his employees must use proper hygienic measures to insure cleanliness in preparation and handling. In many instances they are required to secure health cards from the health department before they are allowed to work. This consists of a physical examination including a chest X-ray and blood test. Packaging must meet certain specifications and the freezer storage is periodically inspected. Health authorities state that the processors of frozen foods in Florida are most cooperative and that this very spirit of cooperation has greatly minimized the problems of the public health workers.

Now, it stands to reason that a processor, in a highly competitive business, who goes to great lengths to create a quality product, will try to insure that when it reaches the table it is just as palatable and of the same high quality as it was when he prepared and froze it. For this very reason the processors carefully watch every step in the freezing process, and insist that the method of transporting them to the distributors will maintain the low temperature necessary to keep the food at its best. Thus we find the industry policing its own efforts bringing quality foods to your table.

The retail grocer also keeps careful watch, even setting up rules for the comparatively simple task of just marking the price on the packages. His profits depend on sales — and no frozen food that reaches the consumer in poor condition will continue to sell. Health department sanitarians periodically check freezers to make sure they are functioning properly.

Thus, with the processor, the shipper and the grocer using every precaution to prevent the product from being damaged by temperature changes, just what is the problem? The answer is simple — it's the consumer who

These workers are shelling and de-veining the shrimp just unloaded from a shrimper. In a matter of an hour they can completely clean, bread and box many tons of shrimp. The shrimp are then sent to the freezer.

Here the processed shrimp are being quick-frozen. These workers are loading the trays at left in such manner that the shrimp may be frozen hard within a matter of a few minutes. The conveyor at right moves the trays into the freezer room where 40-below-zero temperature freezes fast. Cold from the open door at right causes the warmer moisture-laden air to settle in a dense fog about the floor.

generally mistreats and mishandles frozen foods so that they are not at peak quality when prepared for the table — and who sometimes unwittingly paves the way for food poisoning.

The Housewives' Part

Processors bewail the fact that surveys indicate that some housewives go to the store, make their purchases and then are as long as four hours getting the frozen foods into their home freezers. The mistress of the house, feeling the package and noting that it is still fairly cold and firm, considers it to be in the same condition it was when she bought it, and so puts it in the freezer with confidence. Later, when the food is opened and prepared for the table the taste is "off," and her family complains. She makes up her mind not to buy any more of *that* brand again. But let's see what actually happened.

It has been said that "frozen foods have a memory for previous mishandling and that such foods do not recover from abuse." Take poultry, for example. Frozen ready-to-cook poultry deteriorates in quality at substantially elevated temperatures,

with moisture loss, rancidity and darkening of the tissues.

This rate of deterioration doubles for each 10° F. rise in temperature.

Low temperature extends the shelf life of ready-to-cook poultry. If such poultry is maintained at zero, it will remain stable and tasty for about a year. On the other hand, if it is maintained at +20° F. it may develop a rancid, off-flavor product *within a month.* Frosting and darkening of the skin will occur if the temperature is allowed to fluctuate. This will occur even if the chicken is wrapped in moisture - proof packages. Keeping it at 0° will minimize its opportunities to lose its tastiness.

The question has often been asked, "Won't food dehydrate more quickly at temperatures below zero than above zero?" The answer is: *the colder the better.* Deterioration due to temperature changes means flavor changes that are not necessarily caused by bacteriological growth *since rising temperature itself induces chemical changes in flavor.* Therefore, the lower the temperature, the less deterioration.

So when the housewife purchases poultry, for example, that has been maintained at a constant 0° temperature, lets it stay in the grocery bag in the car (perhaps parked in the sun) for a few hours, and then takes it home and puts it in her freezer, the process of deterioration has already begun and it is too late to actually salvage the flavor that has already been lost.

In addition, many housewives have wondered why it was that some frozen foods stayed rock-like in the freezer portion of the family refrigerator and yet the ice cream, in the same compartment, was soft and barely frozen. This is due to the fact that the freezing temperatures of the two items are different.

Question: If frozen foods thaw out must they be destroyed?

Answer: Not necessarily. After all, they must be thawed before they are cooked. If the foods have only been thawed for a short time they may be safely eaten. The important question is how long have they been thawed out and how high the temperature has been. If the temperature went no higher than 50° the foods may be maintained at this level safely for several days but are not to be re-frozen.

Heavily clothed against the below-freezing temperature these workers are making sandwiches to be quick-frozen and shipped to stores about the country.

Liquids

Of great economic importance to Florida is the frozen citrus foods industry. Millions of cans of concentrated orange juice, grapefruit juice, lemon and lime juices and other citrus products have been distributed about the nation and across the ocean. The value in dollars and cents is enormous and it is vital to the people of Florida that such a large volume of foods reaches the consumer at its finest in taste and quality.

At present there are no plants in Florida processing such items as frozen clam chowder, frozen oyster stew and similar products. If you purchase these foods in your favorite grocery store always be sure that the substance in the can is frozen so hard that it is solid in the can. If it rattles or if it can be shaken from one end of the can to the other then there is reason to believe it might not be properly frozen at the time you inspect it — so don't buy it.

Combined Foods

Florida has one plant that is somewhat unique in the frozen foods field. They make and freeze sandwiches. The sandwiches are prepared complete with all the various types of spreads and dressings and are forwarded by freezer truck to stores all over the state. This operation compares with prepared meals that are frozen and sold nationwide. One must not allow these products which contain several foods to remain out of the freezer too long for the danger of food poisoning is always present and deterioration is faster in prepared foods.

The Health Aspect

It is a rare occasion when frozen foods cause food poisoning. The processors are careful to prepare and freeze their products at the peak of freshness, insuring that the bacteria present are at a minimum. The very act of freezing the food suppresses the ability of the bacteria to multiply, holding them in a state that might be described as completely inactive while frozen. They are not killed by the freezing, merely held dormant. It is

In the intense cold of this room the sandwiches are frozen. Here a worker checks out a shipment to be transported by truck to food stores.

not until food temperatures rise and conditions become favorable to growth of the bacteria that they begin multiplying. Since the bacteria count is usually low at the time of processing there is little danger of the food attaining a high bacteria count between the time you thaw it out and cook it. However, if the food is thawed and re-frozen then the bacteria count goes up and when it is subsequently re-thawed the count rises rapidly.

Food Poisoning

Generally speaking, food poisoning occurs when either an infectious bacteria such as *salmonella* or a toxin producing bacteria such as *staphylococcus* is present in foods in large quantity. Held dormant at low temperatures these tiny offenders will multiply at amazing rates when the temperature rises. Thus it is that salads, meats and some types of cream pastries may cause symptoms of food poisoning when they are allowed to stay out of refrigeration for excessive periods.

Food poisoning is often serious though rarely fatal. It is usually indicated first by violent nausea and diarrhea. Usually, most of those who have eaten of the particular food containing the offending organisms are ill. Medical attention should be obtained as soon as possible.

Other Problems

Florida's sanitarians tell us that another problem connected with food that has been thawed and then re-frozen is one called "enzyme action." Thawing releases the frozen moisture and natural juices in the food. These are the principal sources of the flavor we enjoy so much. When they are re-frozen the liquid particles become flakes of ice which then destroy the tissues and cells of the food. This action releases enzymes which further destroy food flavors. Later, when you thaw the food out once again and cook it, the quality and taste are gone and you do not enjoy it.

All reputable grocers selling frozen foods have display cases made for just that purpose. Although many of them have no cover over the top a constant flow of sub-zero air flows around the products, maintaining the desired low temperatures. Mechanical failure of the equipment is always imminent and the grocer carefully checks his freezers at frequent intervals to avoid loss.

The grocer is always careful to instruct his employees in two important matters: first, in order that the flow of cold air may be constant and uninterrupted, the frozen products must *not* be placed in the display case where they fill it above the safe margin line, second, when placing fresh

Here the sandwiches are loaded on a freezer truck. The food is quickly moved from the freezer to this truck to prevent any chance of thawing.

stock in the cases it must be placed to the back of the case or the bottom of the stack so that the older stock will be used first. These two items are extremely important to both you and the grocer, for it enables you to be be assured that your foods have been kept at the low temperature necessary for taste and quality and that the stock you are buying has not been consistently pushed back for a period of time while fresh stock has been rotated in front of it.

Figures Are Important

You might be interested in the desirable temperatures recommended for food storage in retail stores. Next time you visit your favorite supermarket, take a look at the thermometers in the various cooling cases and see

Fixture or Area	Normal Air Temperature Range
Open Top Dairy Cooler Case	36° to 45°
Dairy Cooler Box	36° to 45°
Beverage Cooler Box	36° to 45°
Open Top Meat Cooler Case	30° to 34°
Pre-Pack Meat Troughs	30° to 34°
Open Top Frozen Meat, Fish and Poultry Case	−10° to 0°
Fresh Seafood Case	32° to 34°
Service Meat Cooler Case	32° to 38°
Meat Cooler Box	32° to 36°
Meat Packaging Room	55° to 60°
Produce Cooler Case	36° to 45°
Produce Cooler Box	36° to 45°
Frozen Food Case	−10° to 0°
Ice Cream Case	−15° to −5°
Freezer Box (when storing both ice cream and frozen foods)	−15° to −5°

if they don't conform pretty well with these figures:

Your retailer is aware that emergencies do happen and that he must then get his frozen food into safe storage as quickly as possible or lose it. He has arrangements with his supplier to send trucks to take it to safe storage long before the danger point has been reached in the thawing out process.

Since we have already made the statement that the chief problem in keeping frozen foods well below the point of deterioration rests with the consumer then let's see what *you*, as the consumer can do to keep your foods up to par.

You Can Help

To begin with, always select your frozen foods last so that "out-of-freezer" time is held to a minimum. In many stores the cashier reminds the purchaser that she has frozen foods in the bag and not to let them stay out of the freezer very long. Some supermarkets put such foods in special foil bags that hold the cold. If the groceries are packed in such a way that the frozen foods are all in the same bag there is less likelihood of damage. Oddly enough, the consumers appreciate this advice and many of them abide by it. However, there are still those who go by the laundry (and make several other stops) before they arrive home and start unloading the groceries. Also, if the groceries were put in the trunk of the car, there is a good chance that the much higher temperature inherent in this closed space has greatly raised the temperature level of the frozen food.

If you are in doubt as to the proper temperature at which your home freezer should be maintained, REMEMBER one simple rule: THE COLDER THE BETTER. You will not damage or change any of your frozen foods by lowering the temperature as far as possible. The danger lies, as we said, in letting the temperature *rise*. Or-

dinarily, a level of −10° to 0° is considered adequate for anything you put in your freezer. To keep ice cream hard, the temperature must be maintained at −5°.

Nearly all modern refrigerators have a freezer compartment which will hold approximately 70 to 80 pounds of frozen foods. They are engineered in such manner that the rest of the refrigerator is cooled to the 35° to 45° mark and the stored foods that must be kept cold, but not frozen, are retained at just the right temperature. The temperature of the freezer portion of the box is often adjustable and when the correct balance is maintained between the two, the frozen foods are safely stored.

How To Tell

How can a housewife tell if the frozen food she purchases has been allowed to thaw and then was re-frozen? The answer is not easy. Usually if the product is in a can one can tell by the ends of the can. In some instances the can will swell on the ends which will snap back and forth when pressed with the fingers. But this is not true in all instances and many fine foods packed in cans will give the same response. Vegetables packaged in paper containers will often visibly swell and become misshapen. Meats and poultry will darken and take on a grayish-brown appearance. When foods look dry and hard under the protective wrapper they may be either re-frozen foods or have been in stock a long time.

These tests may be applied to your own foods you freeze at home. But the best way to insure freshness and quality is to rotate the foods as rapidly as possible and never store fresh foods in front of older foods.

If father is a sportsman and brings home fish and game to be stored in the freezer a few simple rules should be followed. The food should be thoroughly cleaned and allowed to air dry for a short period before wrap-

Question: If a grocer has frozen foods that have been kept at temperatures above the recommended limits, can he sell them?

Answer: Yes, provided they have not exceeded 50° during the thawing out period and provided he sells them as "refrigerated foods" and says they are not to be refrozen.

▸ *At the grocery store the frozen foods are unloaded under the supervision of a worker charged with the responsibility of seeing that they are not given a chance to thaw out.*

ping. This prevents an excess of moisture being contained in it when frozen and prevents too much frosting or an accumulation of ice crystals. Wrap fish and game in small packages using freezer paper, rather than waxed paper. The freezer paper does not tend to collect droplets of moisture when warm outside air strikes it when the freezer is opened. Foods wrapped in freezer paper do not tend to stick together so badly, either. Always store packaged foods in the freezer so each package touches other packages on at least two sides, if possible.

Just a word of caution: unless foods have been quick-frozen at the processors, you might damage them by trying to put them

in your freezer. Some foods are kept refrigerated in shipment but have not been frozen. If so, the very act of freezing them might result in damage that would spoil them. For instance, snap beans when quick-frozen at the plant keep well at 0°. But they will be damaged badly if they have been refrigerated first and then frozen since their freezing point is 30°.

Bananas, avocados, peppers, sweet potatoes and other food are not frozen since they cannot stand the intense cold and still retain their quality.

Be Ready

Home freezer emergencies could be disastrous if the owners were not prepared to move rapidly and make the necessary corrections to overcome the problem. If the electricity should go off and the freezer motors could not work, the box will gradually warm up and the thawing process will be imminent. The best procedure in event of power failure is to secure a few pounds of dry ice immediately and place it in the freezer — then do not open it unless absolutely necessary. The dry ice should keep the freezer at temperatures of at least 0° for about 48 hours. Ordinary blocks of ice will not maintain freezing temperature and should not be used except as a last resort.

Should the emergency continue and no dry ice is available and block ice is used, then carefully note the temperature at the time the emergency ends and the freezer is functioning again. If the inside temperature has been allowed to go above 20° then it is possible some

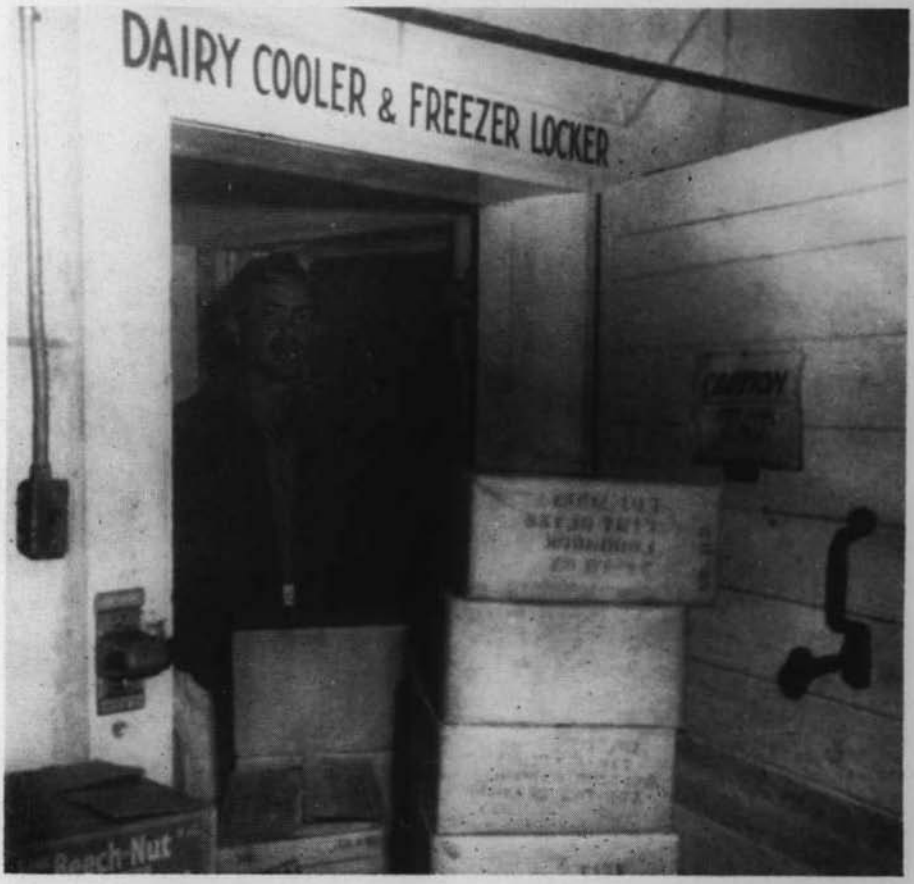
Question: Are re-frozen foods harmful?

Answer: Not just because they are re-frozen. When food has been allowed to thaw and is then re-frozen the taste and quality is usually damaged to the extent that the food is unpalatable. Bacterial action that may cause food poisoning occurs much faster at high, warm temperatures. So, if the food has been allowed to stay thawed out for several hours before re-freezing there is a strong possibility that food poisoning could result. Some foods, such as fish, shrimp, crabmeat and other sea foods as well as foods containing milk or milk products spoil much faster than others.

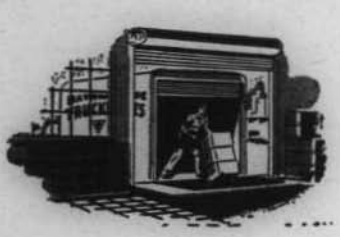
thawing has taken place and some foods might not be of good quality if they are re-frozen. This will be particularly true of the meats and meat products, rather than the vegetables and fruits. So keep an eye on your freezer temperature and if it starts to climb much above 0° it might be wise to try to move your foods to a commercial locker with auxiliary power to provide continuous freezing temperatures until such time as it is safe to return them to your home. Almost every city of any size has such freezer space available.

So, with the knowledge that your processors and merchants are going to do all in their power to insure that you receive a quality product please don't let your own problems of transportation and storage spoil your food for you. You may rest in confidence that the packaging and quick-freezing are done according to inspected sanitary methods and that your grocer doesn't want to lose his profit by mishandling your food. The rest is up to you.

When unloaded from the freezer truck the frozen foods are immediately placed in a freezer locker at the store. The brief period required for unloading does no harm to the products involved.



Public Health Aspects of
FROZEN FOODS



Report of the Committee on Frozen Food Sanitation — 1956

SINCE WORLD WAR II the frozen food industry has been doubling its production about every four years. This rapid growth has been due largely to an increase in new products whose production and sales increased rapidly and then tended to level off. Frozen fruits and vegetables were the first group of commodities to expand rapidly, followed by the frozen juices and now the "heat and eat" items. The prospects are good that the "heat and eat" items — or prepared frozen foods as they are known in the trade — will continue to be the most rapidly growing area in frozen foods in the immediate future. In 1952, approximately 50,000 dozen of frozen meat pies were sold, whereas in 1955 sales of this class of product had skyrocketed to 25,000,000 dozen.

There are several reasons for this continued expansion of frozen foods. In the first place, "heat and eat" items have opened the door for processors to shift the housewife's burden from the home to the factory. They provide a variety of convenient foods, and at the present time there are more than 200 of them on the market and more coming every day. (EDITOR'S NOTE: *How many million dozen do you suppose we will eat in 1959?*)

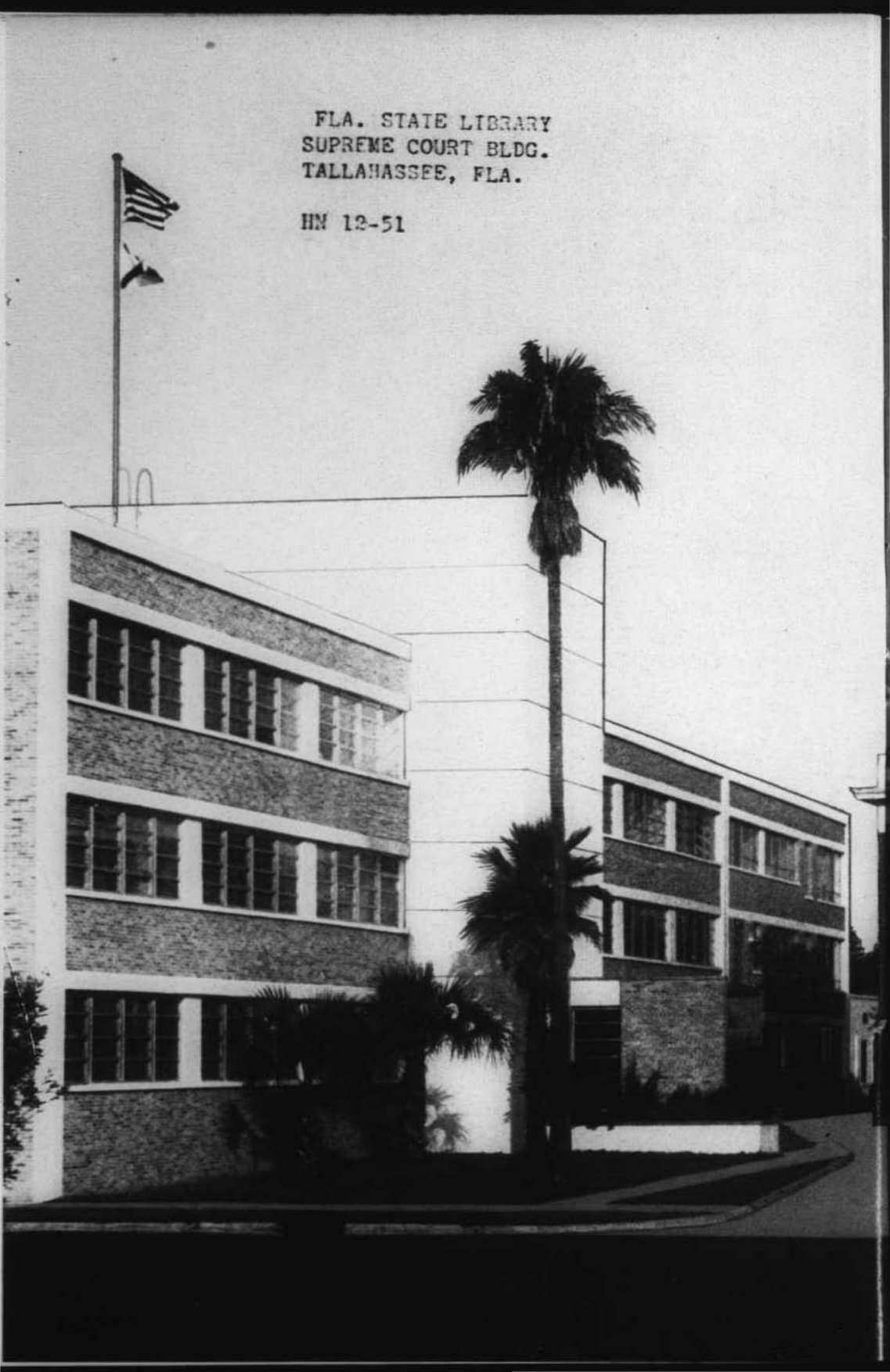
—International Association of Milk and Food Sanitarians, Inc.

FLORIDA STATE BOARD OF HEALTH

1217 Pearl Street or P. O. Box 210
JACKSONVILLE, FLORIDA

All Counties in Florida have organized county health departments, except St. Johns County

FLORIDA HEALTH NOTES published by Florida State Board of Health since 1892



Florida HEALTH NOTES

VOLUME 51 • No. 9
NOVEMBER, 1959

COMMUNITY NURSING SERVICE

Physical rehabilitation takes time and patience. Here a public health nurse assists a patient in using a homemade walker.

Community Nursing Service

"Can you find a nurse for me? I only need to have my dressing changed once a day but it is so hard to locate a part-time nurse." Who meets this kind of need in your community? Do you know if you have nurses who will go into a home and teach a new mother how to bathe a baby? A newly-diagnosed diabetic how to give herself insulin? A stroke patient's family how to help him rehabilitate his paralyzed muscles? There *is* help, but more in some communities than others. Larger cities usually have a nurses' registry and occasionally they have someone on call who will do part-time nursing. However, today most of the nurses who are willing to go into homes, both practical or professional nurses, wish to work for a full eight hours—for a full eight-hour fee.

There are Visiting Nurse Associations found in all of Florida's larger cities. The *visiting nurse* gives what is known as "bedside nursing care", on a part-time basis. She is usually employed by a voluntary organization that gets its income from donations, United Fund campaigns and fees from patients she serves. No one is refused care, however, if they do not have any money, so her patients are divided into three groups: those who pay a full fee (usually around two to three dollars per visit), a part of the fee according to their ability to pay—or nothing.

The visiting nurse can make only one visit to a patient not under medical care. After that she must have direct instructions from a doctor if she is to continue to teach Mrs. Doe how to bathe her husband who has heart trouble, or Mr. Roe how to prepare his diabetic diet. She may visit a home many times following this first visit, but will try to teach the patient, a member of his family or someone who cares for the patient how to better care for him while he is in the home. Many people fare better at home than they do in a

FLORIDA HEALTH NOTES

Published monthly except July and August on the 5th of the month by the Florida State Board of Health. Publication office, Jacksonville, Fla., headquarters of the State Board of Health. Entered as second class matter, Oct. 27, 1921, at post office, Jacksonville, Fla., Act of Aug. 24, 1912. It is intended primarily for individuals and institutions with an interest in the state health program, public and private. Permission is given to quote any story. Clipping of quotations or excerpts would be appreciated.

hospital, particularly if they are the victims of a long term disease. Hospitals are wonderful places to go to if you are sick, but naturally they become depressing to a long-term patient.

But let's not forget our *public health nurses.* Found in the County Health Departments in 66 of our counties, they, too, do some bedside nursing care, but their primary job is to teach. Public health nurses will demonstrate how to give a baby a bath, or change a dressing or get Grandma out of bed more easily, but the public health nurse does not have time to return time and time again to serve patients who need repeated visits for nursing care. Her work includes County Health Department Clinics, visiting schools and homes; teaching pregnant mothers how to better care for themselves; doing follow-up visits on children with physical or mental defects whom she has found in one of her schools; visiting a person who has tuberculosis and needs an explanation of why he should be in a hospital; contacting families to help them prepare for the return of a relative from a state mental hospital—and on and on.

This issue of *Health Notes* is concerned with two kinds of nurses — the public health and the visiting nurse. In communities where there are both, there is sometimes overlapping of nursing services. And in small communities there is often need for a nurse to do some bedside nursing, but the area is not big enough to support a County Health Department and a visiting nurse, too. So what is the answer? Well, Florida believes that it has the answer in a *combination service.* If this seems like an odd title, remember it because the chances are you will need some bedside nursing some day and maybe your town will be lucky enough to have a combination nursing service.

What Is That?

In a combination service, the public health nurse and the nurse paid by the voluntary agency work together, each offering a "total nursing program" to the community. The community is divided up into smaller districts than when there were two agencies working separately, so each nurse serves a smaller area. In other words, each nurse in the combined program does what the other had been doing exclusively. Thus, every nurse who goes into a home is prepared to teach as well as to give bedside care. This type of service saves time, since only one nurse goes where two might have gone previously; saves office space, since all the nurses can now work out of the same office; saves travel and car use; saves record keeping because there is only one set of records where two had been, and most important the patient knows he

need call only one place for whatever service he needs. The community is divided up into districts, and each nurse serves only one area.

In her area, she will perhaps teach those who need it about better nutrition; show a new mother how to prepare a formula; give an injection to a patient with heart disease; make a sick child comfortable; refer an injured man to the Vocational Rehabilitation Service; advise an expectant mother about going to her physician regularly; inspect a child's new glasses; visit her schools; serve in a well-child clinic — and do a thousand and one things that a public health-visiting nurse will find waiting for her every day. There is no line drawn either, between the rich and the poor, and her work

A public health nurse cares for this foot injury since the patient cannot easily get to the clinic.

will take her into all kinds of homes in the community.

In the combination service, a fee is charged for bedside care usually on a sliding scale, according to the patient's ability to pay.

One of the biggest advantages of this combination service, to repeat what we have said previously, is that only one nurse goes into a home. Problems need be explained to only one nurse. This is especially helpful to families who have children in school, since the nurse can interpret the school to the home and the home to the teacher. Certainly teachers have a better understanding of the child when they know something about what the home is like.

An Old-New Idea

The combination service is a mixture of new and old traditions in nursing. It represents a complete circle in nursing. Nursing was originally a community project; whenever one member of the community was ill, a neighbor would come and nurse the sick one back to health. Then in the 18th century, nurses began to be trained in hospitals, primarily for bedside care. Many sick people could not afford hospital care, yet needed nurses. This was the origin of the district or visiting nurse, who went to the homes of the sick. Later the district nurses began to separate into two groups—those who taught people how to avoid getting ill (the public health nurse) and those who cared for the ill (the visiting nurse). These nurses began serving in 1859 in England, but were not really known in this country until well after the Civil War when the New York Mission hired a nurse whose job it was to "nurse the worthy poor," and in 1893, the Henry Street Settlement in New York was established. Nurses in this area, the tenement section of New York City, climbed the stairs in their heavy floor-length skirts and carried nursing bags filled with supplies and occasionally a porcelain basin for washing their hands.

Today's public health nurse has a similar role, but physically she is more comfortable in her crisp blue and white uniform. Of course, the advent of the automobile has expanded her territory, and she might well drive over a hundred miles in a day.

For a long time, the public health and the visiting nurse had clearly-defined roles. Recently, however, the roles began to overlap, and the public health nurse found, for example, that to go ahead and give a bath while she was in the home teaching a mother how to improvise a back rest for her ill daughter worked out better for everyone than calling in another nurse. The visiting nurse had always had to do

▶ *Hospital staff members and a public health nurse confer about a patient in whom both are interested.*

some teaching while she gave care in the home, and more people began to seek demonstrations of procedures they could learn to do for themselves.

These problems impressed themselves on health authorities all over the United States. "Why not," they asked, "combine the two different kinds of service, and offer one service which will better serve everyone?" And so the idea of combined or community nursing service was originated. The pendulum had made a full swing.

An Example

To illustrate how the combination service works, let us consider a person who is ill in one of the four Florida counties (Baker, Clay, Sarasota and Volusia) which has a combination service.

Mr. X has had a stroke, and needs some nursing care. His doctor calls the public health nurse who goes to the home. The X family has a limited income. While she is carrying out the doctor's instructions, the nurse takes note of the home surroundings. She notices that Mrs. X, who is responsible for her husband's care, is quite weak. Mr. X has a very poor mattress, and does not sleep well. He needs to be shaved daily so that he can be-

When the two types of nursing service are combined, what are the new nurses called? Why, just public health nurses—with slightly different duties.

gin to feel like himself again. Both Mr. and Mrs. X need to eat more nutritious meals. Mr. X needs to be taught how to exercise his paralyzed right hand and leg. The nurse over a number of visits teaches Mrs. X how to prepare the balanced meals she and Mr. X both need; how to help her husband exercise his stiff hand. After the visit, the nurse contacts other members of the X family who arrange for Mr. X to have a better mattress. She also contacts the Department of Public Welfare, which helps the X family get the help to which they are entitled. This family has been assisted through a trying time and is now getting back to normalcy. The one nurse who entered the home combined what might have been the work of several people. She taught Mrs. X about nutrition and she gave Mr. X a bath. She helped him to regain activity in his muscles, and to get a better mattress. These illustrate how she combined the duties of two nurses.

▶ *Crutches, wheelchair and bandages are a few of the many items stored in a loan closet.*

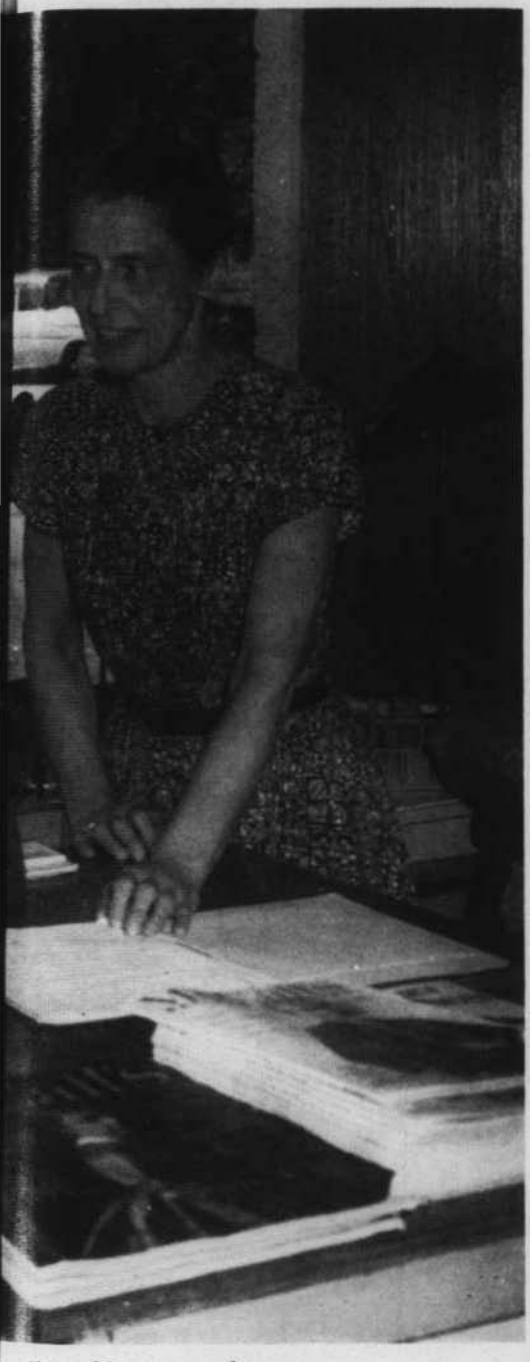
Hands crippled by arthritis can sometimes be benefited by treatment prescribed by her physician and given by the public health nurse.

Community Nursing in Florida

What's the status of community nursing in Florida? How did the counties which have the service get it? To see how one typical county set up this service, let's look at Clay County (County seat: Green Cove Springs). In August 1957, the State Board of Health offered to assist several rural counties in demonstrating the services of a combination program, if they would meet certain criteria. Clay County was the first to accept. As part of the offer, the SBH would pay the salary of a well qualified public health nurse who could go to the county for a two-year demonstration period, and help the county set up the combination program. At the end of the period, the county would assume the responsibility for continuing the service.

Before the County Health Department could accept the program, several steps had to be taken. Since the combination service would be partly financed by the county, the citizens would have to pay for it in the long run, so they would have to un-

Advisory Council president and public health nurse discuss



...ical problems anywhere.

What Is the Future of Combination Nursing Services in Florida?

Two counties, Baker and Clay, have nearly completed their two-year demonstration period. It is hoped that more combination programs will get underway in the future though monies requested for this service from the last session of the legislature were not forthcoming.

Combination nursing services are the programs of the future. They offer everyone in communities everywhere a chance for better health through expanded service.

derstand the plan and agree to it. The local doctors were contacted for they are responsible for a large part of the county's medical care. Nurses can go to a home only once to give bedside care unless a physician gives them medical orders for a return visit. And only certain things can be done on that first visit, so a list of "standing orders"—procedures which the nurse can do until she contacts the family physician — must be developed for approval by the doctors in the county.

The citizens of a community play an important role in any health program, so of course they must be contacted to insure their understanding and acceptance of the new program. Within Clay County are many widely scattered small towns, each with its own set of civic and social leaders. The County is also the site of a large naval installation, and many of those using the service could be Navy dependents. People from all geographic areas and many of the civic leaders were asked to represent the public on an advisory council. These citizens and representatives of the naval commands were asked to meet with the Council at the County Health Department to have the expanded program interpreted to them. Also present were the officials of local voluntary health organizations — the Tuberculosis and Health Association and the Cancer Society.

This group voted to accept the State Board of Health's plan, and incorporated, on the advice of a lawyer, the "Clay County Public Health Nursing Advisory Council". This Council was advisory to the County Health Department. Also, through the council, news about the County Health Department and the nursing service could go back to the small communities, so it serves a two-way purpose.

Who Pays for the Service?

We have said that the county must pay for the service, but how does it pay and who gets paid? When the program began operating in 1958 two voluntary organizations gave money for needed supplies. Contracts were secured from the Veteran's Administration, the Florida Council for the Blind and Vocational Rehabilitation Service. If a person sponsored by one of the organizations became ill, the public health nurse would care for him and receive pay from the agency. Since the public health nurses were now offering an expanded service, including bedside nursing care, fees are charged. The County Health Department cannot accept the fees, because it is part of a tax-supported agency. So the fees collected by the public health nurses are turned over to the Advisory Council which in turn pays the County Health Department when presented with a bill each month.

Just home from the hospital — and the public health nurse comes to check her for the physician.

A blood pressure check is an important part of this prenatal visit to the clinic.

Council members and volunteers prepare and store supplies in loan closet until they are needed.

A public health nurse changes a dressing following an operation while the patient convalesces at home.

The director of the county health department talks with a patient after examination at a prenatal clinic.

Who Is Served by the Combination Service?

Every member of the community, regardless of race or creed or finances, is served by the combination service. To use the service, one simply has to be in need of care. And the service is not a charity, since fees are charged for the bedside care if the patient can afford it. No matter who you are, the public health nurses will care for you, if you really need it.

Other Advantages

An added asset to the public health nursing service is health education. This is not forgotten in Clay County, despite the expansion of the already existing program to include bedside care. In addition to the nurses, every member of the Advisory Council does some health education. Often, returning to their various communities, Council members can explain the health department's work better than could a member of the staff speaking before a larger group.

The Council has many functions. It operates a loan closet in which is kept special equipment needed in case of illness. A wheelchair, for instance, might be used for a short time, and would be an unnecessary expense to a family. One can be borrowed from the loan closet, and returned when it is no longer

needed. Also in the closet are such items as diapers and bandages, which are given away. If a patient needs transportation to and from the clinic, the Council's transportation committee makes sure he gets it. As one nurse said, "The Council is really sold on the idea of a *total* nursing program."

What Are the Advantages of a Combination Nursing Service?

Nurses personally find the service more rewarding, for they are able to use more of their nursing skills, and to keep up with modern drugs and new techniques. Patients are benefitted by the service, for they do not have to turn to separate agencies for various aspects of nursing care.

Combined nursing services are examples of citizens and volunteers working with their government—democracy in action. Perhaps one health officer's statement explains the relationship between the health department and the community, "We consider each member (of the community) and each worker as partners in meeting the challenge of providing not only skilled public health nursing, but also of leadership and guidance in the health program."

Public health nurse discusses patients' problems with Advisory Council medical consultant—a local physician.

VISITING NURSE ASSOCIATIONS IN FLORIDA

Mrs. Billye Boselli, R.N., *Director*
VNA OF DUVAL COUNTY
2105 JEFERSON STREET
JACKSONVILLE, FLORIDA

Mrs. Bertha King, R.N., *Director*
GREATER VNA
P. O. BOX 1731
TAMPA. FLORIDA

Miss Methyl Crossley, R.N., *Director*
VNA OF DADE COUNTY
1350 N.W. 14th STREET
MIAMI 35, FLORIDA

Miss Ruth Baker, R.N., *Director*
VNA OF PALM BEACH COUNTY
3222 S. DIXIE HIGHWAY
WEST PALM BEACH, FLORIDA

Miss Lois Lee, R.N., *Director*
VNA OF CLEARWATER
1180 E. CLEVELAND
CLEARWATER, FLORIDA

Miss Lois Lee, R.N., *Director*
VNA OF ST. PETERSBURG
P. O. BOX 3242
ST. PETERSBURG, FLORIDA

Miss Beatrice Finlay, R.N., *Director*
VNA OF ORANGE COUNTY
122 WALL STREET
ORLANDO, FLORIDA

Mrs. Thelma Boring, R.N., *Director*
VNA OF BROWARD COUNTY
220 LANG BUILDING
FT. LAUDERDALE, FLORIDA

Miss Olive H. Seymour, R.N., *Director*
VNA OF DAYTONA BEACH
440 S. BEACH STREET
DAYTONA BEACH, FLORIDA

Miss Lottie Oliver, R.N., *Director*
VNA OF SARASOTA
COURT HOUSE
SARASOTA, FLORIDA

Mrs. Mertie LeClaire, R.N., *Director*
VNA OF CLAY COUNTY
P. O. BOX 566
GREEN COVE SPRINGS, FLORIDA

Mrs. Bertha L. Wolfe, R.N., *Director*
BAKER CO. VNA
P. O. BOX 481
MACCLENNY, FLORIDA

Mrs. Noice B. Strickland, R.N., *Director*
PENSACOLA VNA
P. O. BOX 1869
PENSACOLA, FLORIDA

FLORIDA STATE BOARD OF HEALTH

1217 Pearl Street or P. O. Box 210
JACKSONVILLE, FLORIDA

HON. LEROY COLLINS
Governor of Florida

BOARD MEMBERS
Charles J. Collins, M.D., President
Orlando

T. M. Cumbie, Ph.G., Vice-President
Quincy

Sullivan G. Bedell, M.D., Member
Jacksonville

John D. Milton, M.D., Member
Miami

F. P. Meyer, D.D.S., Member
St. Petersburg

WILSON T. SOWDER, M.D., M.P.H., State Health Officer
Albert V. Hardy, M.D., Dr. P.H., Assistant State Health Officer
C. M. Sharp, M.D., Assistant State Health Officer

Division of Health Information
Elizabeth Reed, R.N., B.S.

Librarian
Barbara Beckner, B.A., M.S.L.S.

Bureau of Local Health Services
Wade N. Stephens, M.D., M.P.H.
Hubert U. King, M.D., Asst. Dir.

Division of Public Health Nursing
Ruth E. Mettinger, R.N.

Division of Sanitation
A. W. Morrison, Jr.

Nutrition Services
Mary B. Deaver, M.S.

Bureau of Finance and Accounts
Fred B. Ragland, B.S.

Bureau of Vital Statistics
Everett H. Williams, Jr., M.S.

Bureau of Dental Health
Floyd H. DeCamp, D.D.S.

Bureau of Narcotics
Frank S. Castor, Ph.G.

Bureau of Laboratories
Nathan J. Schneider, Ph.D.,

Bureau of Mental Health
Wayne Yeager, M.D., M.P.H.
Melvin P. Reid, Ph.D.
Chief Cl. Psychologist

Bureau of Entomology
John A. Mulrennan, B.S.A.

Bureau of Sanitary Engineering
David B. Lee, M.S., Eng.
Sidney A Berkowitz, M.S. Eng.
Ass't. Director

Division of Water Supply
John B. Miller, M.P.H.

Division of Waste Water
Ralph H. Baker, Jr., M.S., San. Eng.

Bureau of Preventable Diseases
James O. Bond, M.D., M.P.H.

Division of Tuberculosis Control
Dwight Wharton, M.D.

Division of Industrial Hygiene
Edwin G. Williams, M.D.

Division of Epidemiology
Robert E. Markush, M.D., M.P.H.

Division of Veterinary Public Health
James E. Scatterday, D.V.M., M.P.H.

Bureau of Special Health Services
L. L. Parks, M.D., M.P.H.

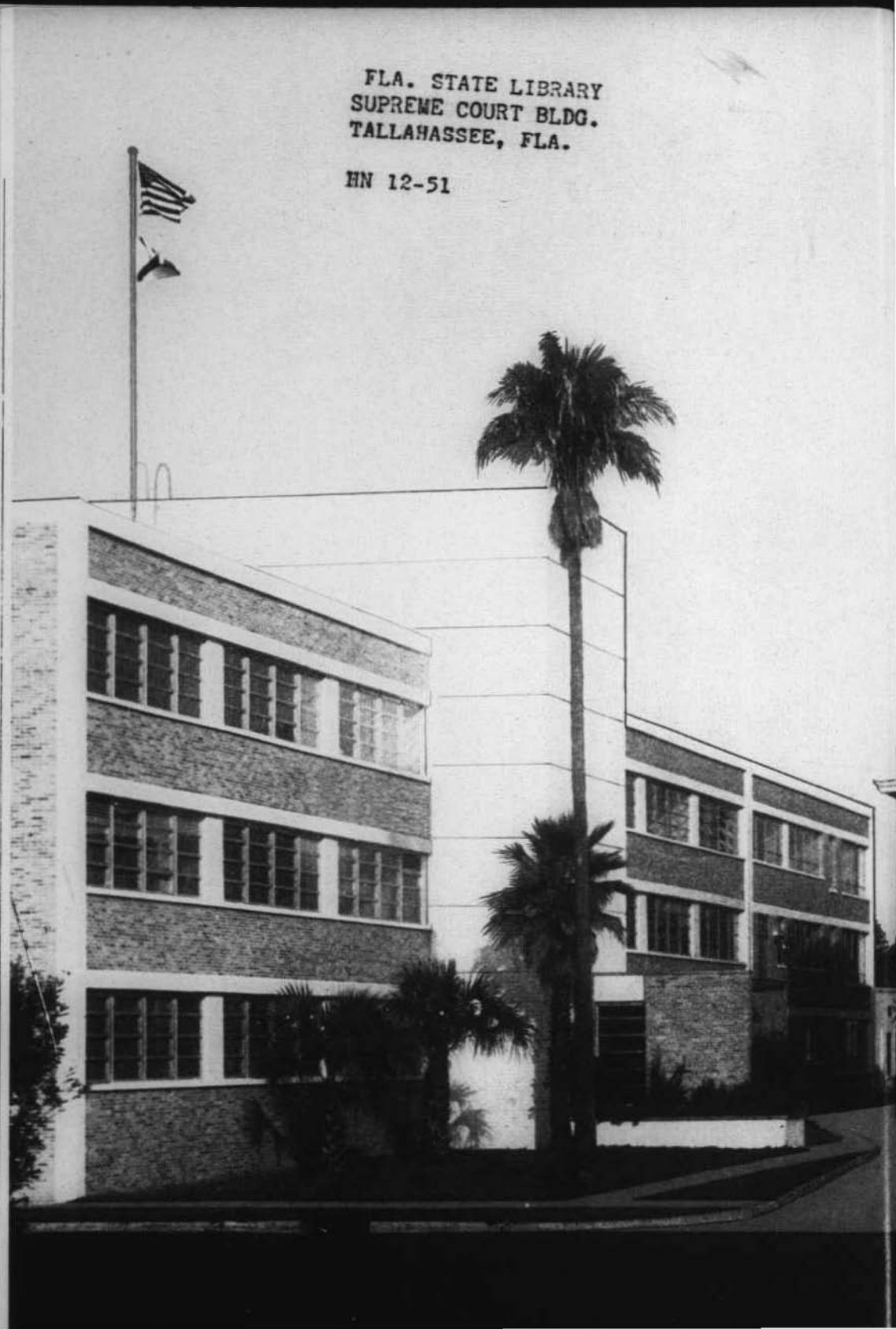
Division of Hospitals & Nursing Homes
John L. Enyart, M.D., A.B.

Division of Chronic Diseases
Heart, Cancer and Diabetes

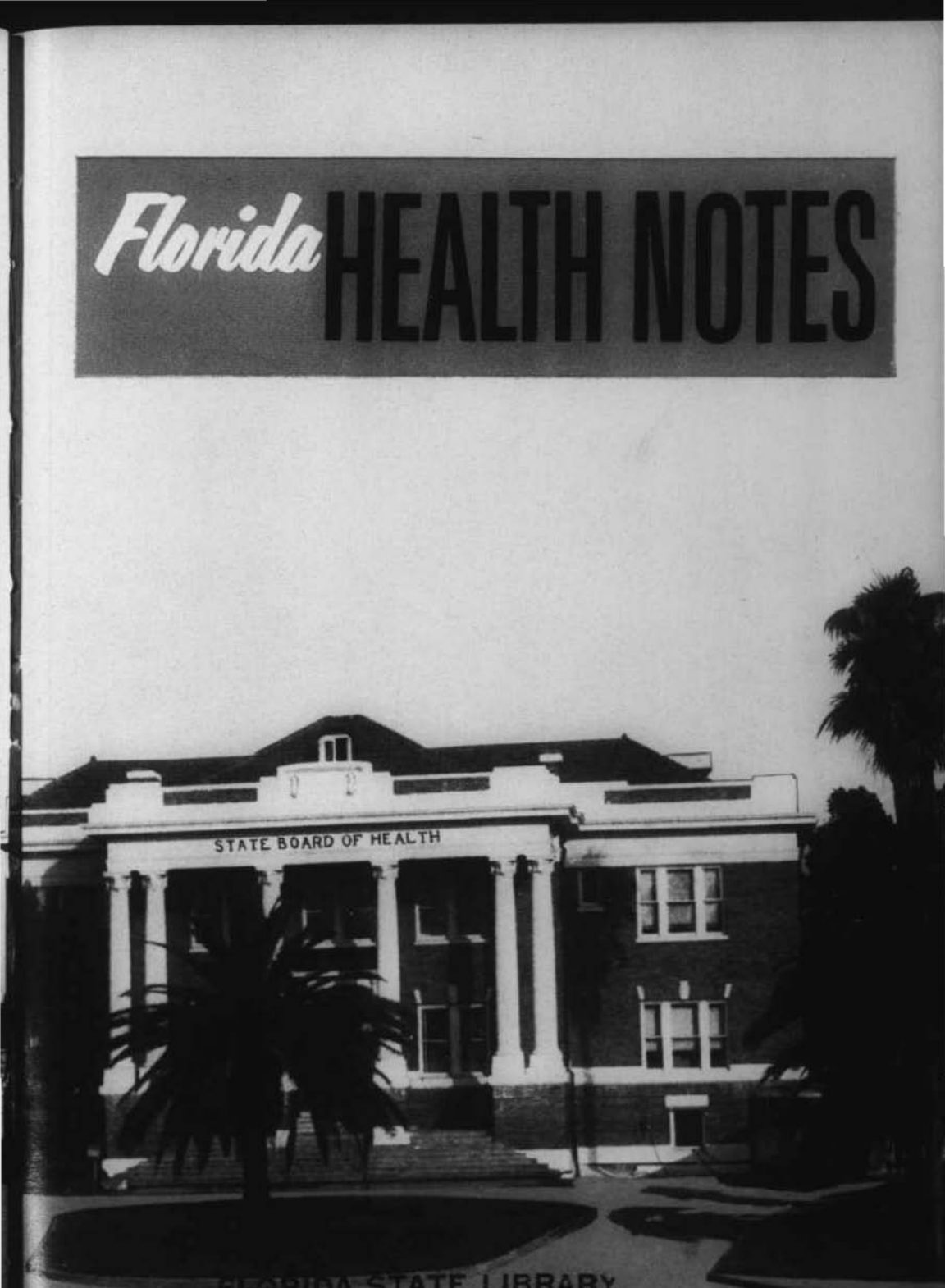
Bureau of Maternal and Child Health
Simon D. Doff, M.D., M.P.H.
E. L. Flemming, Ed.D.
Ass't. Director

All Counties in Florida have organized county health departments, except St. Johns County

FLORIDA HEALTH NOTES published by Florida State Board of Health since 1892

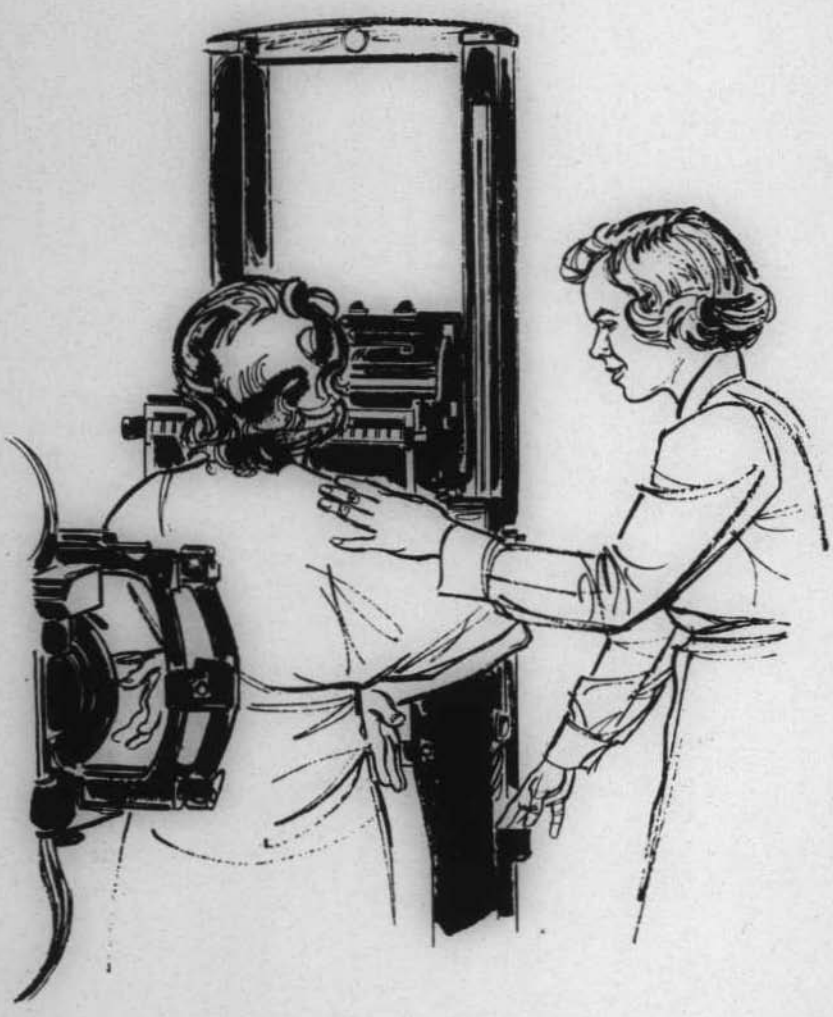


Florida HEALTH NOTES



VOLUME 51 • NO. 10
DECEMBER, 1959

HEALTH CAREERS



X-RAY TECHNICIAN is only one of the many health careers opened to young people today. X-Ray machines are found in every hospital and in many doctors' offices.

Good jobs stand waiting— in the health field—in Florida.

One of the state's greatest health problems is the lack of trained workers. There is increased demand for hospital workers of all kinds. Jobs in state and county health departments must sometimes wait for qualified applicants. Some areas in Florida do not have enough doctors, dentists or nurses. Some small towns and villages have none at all.

The phrase "Florida's exploding population" is used so frequently in the state's press these days that it is almost a household term. But it is not an exaggeration, and its meaning in terms of the state's future needs for health workers is well known to those who have responsibility for planning to meet those needs. The State Board of Health is deeply concerned over this lack of health workers, and this issue of "Florida Health Notes" is one of our efforts to help meet this need.

There is no exaggeration in the phrase which we used at the beginning. There is need right now, and there will be greater need in the future, for new members on the health team; professional, technical and lay workers, on public payrolls and in private practice. Good jobs stand waiting—in the health field—in Florida.

A Health Career

There is something about the work of people in the health field which makes them think of it as a career rather than a job. This is not difficult to understand. It *is* a career rather than a job.

You can find out how people in the health field feel about their jobs much better by talking to them than by reading a publication like this. One thing you will find is that they all have that feeling of being a part of something big and important. You will notice pride and satisfaction in their voices when they tell you what their work is. They will say, for example, "I am a public health nurse," rather than, "I work for the County Health Department." There is so much more to it than merely having a job, or being "just a number on the payroll."

Just as in many other fields, the greatest strides in the health field are still to come. The end of cancer, the elimination of tuberculosis, the last of the hookworm, every new baby perfect. Are these just dreams? Doctors before Pasteur and Lister didn't dare dream of the control of infection. Surgeons in the nineteenth century never conceived of open heart surgery.

Work in the health field requires training and effort, and the cash rewards are not the greatest. But those who enter the field stay there with few exceptions. They know that the fight to improve man's health is long and hard, and often against man himself, with his ignorance, his lethargy, his vested interests. But the same could be said of any field in which man strives to improve himself and his surroundings. The health field offers a full life— a life of satisfaction and accomplishment. The young person looking for a career might well look long and hard at a career in the field of health before making some other choice.

Scholarships

But you will say, "I don't have the money to go to school, or send my child to school so he can be a doctor, a nurse, a veterinarian or what have you. What am I to do?" The answer is: There are literally hundreds of scholarship opportunities open to the qualified student. Universities and colleges, Federal and state governments, American industtries and business firms by the dozens are ready to help promising students up the ladder of education.

These individual scholarships are far too numerous to name here. For example, the *Guide to Florida Scholarships* issued jointly by the Florida Industrial Commission and the State Department of Education (Tallahassee) lists ten sources of scholarships for chemistry students. Some of these sources may grant more than one scholarship at a time. There are twenty listed as

PHARMACIST

granting scholarships in engineering, thirteen in medicine, twenty-seven for nursing, twelve for pharmacy and others in dairying, entomology, hospital administration and nutrition. There is hardly a phase of educa-

FLORIDA HEALTH NOTES

Published monthly except July and August on the 5th of the month by the Florida State Board of Health. Publication office, Jacksonville, Fla., headquarters of the State Board of Health. Entered as second class matter, Oct. 27, 1921, at post office, Jacksonville, Fla., Act of Aug. 24, 1912. It is intended primarily for individuals and institutions with an interest in the state health program, public and private. Permission is given to quote any story. Clipping of quotations or excerpts would be appreciated.

tion in the field of health that is not mentioned in the long list of those who offer aid to the deserving student.

Besides these grants for study in a specific field there are numerous ways by which the Federal government and the state aid those who have served in the armed forces and their dependents. Here again the list is too long for inclusion in *Health Notes*. There are the educational grants for veterans of World War II and the Korean War. There are scholarships for children of veterans.

But that's by no means all. Literally thousands of scholarships are granted each year by American business. Thousands more are offered by philanthropic foundations and educational institutions. Still others are given by large and small church denominations and even by individuals, acting privately and quietly either directly with the student or through teachers, ministers and others.

It has been said often and truly, the capable student in America need not lack for an education. He can find aid to go as high as his brain and ambition will take him. But let's examine some scholarships specifically available in the field of health.

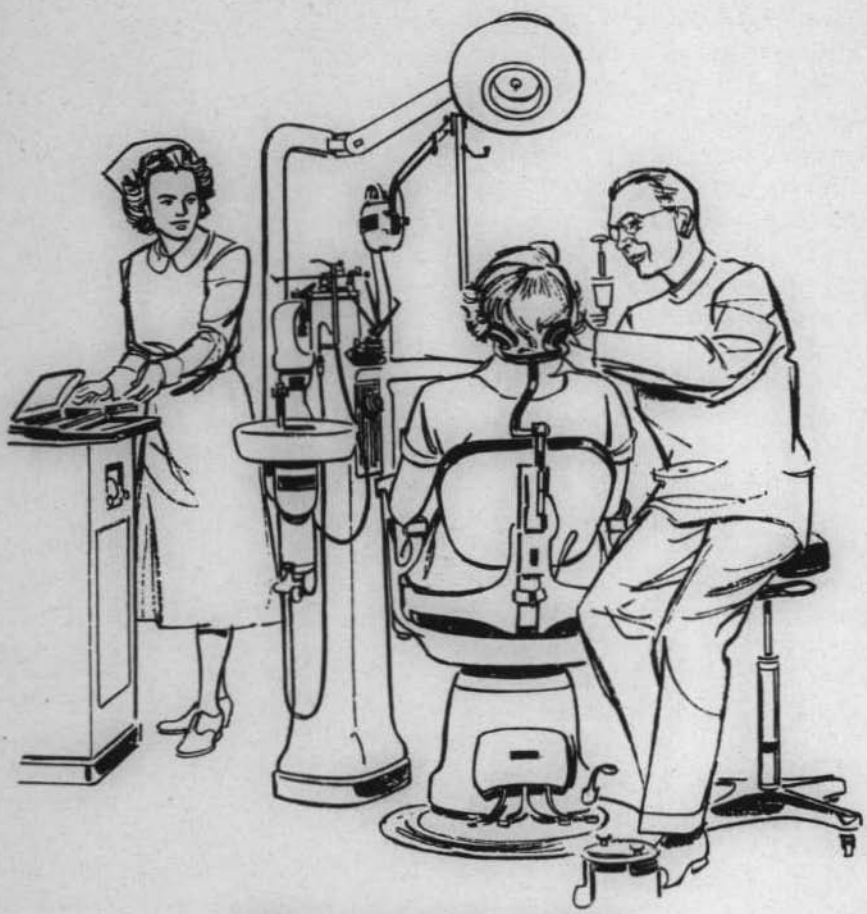
Medical

The leader of the medical

PHYSICIAN

team or health team is the physician. The other works are vitally necessary, but he gives direction to their efforts. Florida has about the same number of physicians per unit of population as the rest of the nation, around one per thousand people. But they are somewhat concentrated in the more populous urban areas. A few counties do not have a doctor living or practicing within their boundaries. A number of others, especially in the northern part of the state, have only one physician for each several thousand people.

Florida is concerned over this lack of doctors in certain areas. In 1955 the legislature passed an act to establish state scholarships for qualified and promising med-



DENTIST AND DENTAL ASSISTANT

ical students (who were unable to finance their own education) who would agree to serve the state by setting up their medical practice for a specific length of time in areas where a physician is needed. These scholarships are provided, to ten students a year, on a competitive basis. A Medical Scholarship Committee consisting of five practising physicians and the deans of Florida's two medical schools selects the successful applicants and recommends them to the State Board of Health, which in turn grants the scholarships. A student can receive as much as one thousand dollars per year for as many as four years. The grants are made to Florida citizens who have successfully completed their premedical studies and have been accepted for admission to an ac-

credited medical school in the United States. The Scholarship Committee selects students with outstanding qualifications. The student thus aided agrees to serve 15 months for each year of full scholarship.

Dental

Scholarships are awarded on a similar basis to dental students. The Scholarship Committee of the State Board of Dental Examiners selects the students for recommendation to the State Board of Health. The successful applicants agree to serve a recommended area of the state for fifteen months for each year of scholarship granted. Indeed, even as you read this, the first group of these students has passed its board examinations and the young men are making their final arrangements to start dental practice in some of Florida's communities where there are not enough dentists, or perhaps none at all.

★ ★ ★

Of course, these special state scholarship programs are not the only source of new doctors and dentists in Florida. In 1953 the state did not have a medical college located within its borders. But in the fall of that year the School of Medicine of the University of Miami enrolled its first class of students, and in 1956 the School of Medicine at the

REGISTERED NURSE

University of Florida at Gainesville was established. In a few years both will be sending out into Florida communities more new doctors to serve the people's needs.

Florida does not have a school of dentistry.

Nursing

The doctor's right hand—and his left, too—is the nurse. The term is a broad one, covering the field from the registered professional nurse who has had a full college course with postgraduate degrees to the much simpler category of the practical nurse.

The education of the professional registered nurse can be obtained in either of two types of schools, the collegiate school and the hospital school. In the collegiate school the prospective nurse spends at least four years getting a college education and nursing experience leading to a

bachelor of science degree. She enters professional life as a college trained nurse qualified not only for a nursing career but for many executive and special fields in nursing. The girl who receives her nursing education at a three-year hospital school however is also a full-fledged registered nurse.

The term practical nurse is used to designate the person who has not had the scientific training of a professional. She usually works under the supervision of a professional nurse and must be licensed to work in Florida.

Nursing scholarships are available for all levels of licensed nursing practice, from practical through the highest professional levels. The awards for State Nursing Scholarships are made through the Scholarship Office of the State Department of Education. No specific number of scholarships from Florida funds are available each year. The state has a revolving fund of approximately $300,000 from which the grants are made to the top ranking applicants after competitive examinations. The amounts of the awards vary from $300 for student nurses to $1,200 per year, for post-graduate study by advanced professionals. As in the case of doctors and dentists, the nurse trained under the state program must serve in a nursing capacity within the state, but in this case the area is not selected for her. The length of time to be served varies with the type of training taken and the amount of money granted.

More people are engaged in nursing service than in any other group of health occupations—all told, nearly three-quarters of a million.

SANITARIAN

Sanitation

One of the largest professional groups in the field of public health is that of the sanitarians. To be a sanitarian one must first have a degree in one of the basic sciences, preferably Sanitary Science. Additional training is desirable and is provided by several means: the official health agencies, the professional sanitarians' organizations and by schools of public health.

Sanitarians have a diversified and interesting line of work. Much of it is carried on out of

doors. Their basic goal is to control those factors in the environment that might affect man's health. They deal with pure water supplies, waste disposal, food and milk sanitation, industrial hygiene, housing, school sanitation and insect and rodent control. They check on public bathing places, advise water and sewage plant operators. work in accident prevention and advise on many other community health problems. Helping to educate the public on matters of health is an important phase of the sanitarian's work. He consults with individuals, groups and communities in order to help them solve their sanitation health problems. To effectively do his job the sanitarian must possess and use many of the skills common to the scientist, educator, public relations expert and engineer.

The demand for the services of the sanitarian increases daily as our population continues to expand. A career in sanitation promises full days of varied interests and offers many opportunities for the young college graduate looking for satisfying lifetime work.

Other Fields

In addition to the physician, dentist and nurse—there are many administrators, educators, scientists and technicians whose jobs are vitally important, and who must have a thorough training to prepare for their work. Many of these people received their training for the most part in schools of public health and other schools teaching scientific subjects at universities. With few exceptions these jobs require some college education after completion of the science subjects taught in high school.

VIROLOGIST

There are approximately 150 health-related careers today and they cover a tremendous amount of familiar and unfamiliar territory. There are jobs for clerks and microbiologists, typists and histologic technicians, nursing aids and psychometrists. Let's take a look at the preperation required for some of them.

For example, a physician spends a minimum of nine years after high school preparing for

WILSON T. SOWDER, M.D.
State Health Officer

AN EXAMPLE OF

A SU

HEALT

A CLASSIC EXAMPLE OF A SUCCESSFUL and fruitful health career is that of Florida's State Health Officer, Wilson T. Sowder, M.D. This physician, who became the leader of our state's public health forces at the age of 35, is regarded as one of the ablest and youngest state health officers in the nation. Born in Virginia in 1910, he graduated as a doctor of medicine from his state university at the age of 22. He was only 29 when he earned his MPH degree at Johns Hopkins in 1939.

Dr. Sowder's professional life began when he joined the U. S. Public Health Service and was assigned to hospitals in Baltimore and Seattle. He served after that as medical officer aboard a Coast Guard cutter in Alaskan waters and had a tour of duty at the quarantine station at San Francisco. The USPHS then moved him to Tennessee where he was for a time Venereal Disease Control Officer.

Dr. Sowder first served in Florida with the armed forces and the County Health Department at Pensacola, where in 1940 he led the fight to control VD in that congested military area. In a few months he was moved to Tampa and became Health Officer of Hillsborough County, where he remained until 1942. Then the State Board of Health recognized his capabilities and brought him to Jacksonville to head the VD control program which became such a large project during the latter years of the war. Later, he was appointed Assistant State Health Officer under Dr. Henry Hanson. Then in 1943 the USPHS sent him to Washington, where he served as VD consultant

CCESSFUL

H CAREER

to the War Shipping Administration. After a few months in that capacity, he was sent to Dallas where he served in the same capacity in Texas and New Mexico.

By this time, Florida knew what it wanted, and on the retirement of Dr. Hanson, called Dr. Sowder from Dallas to become Florida's State Health Officer. He has held that post under seven governors, since September of 1945.

The growth of the public health program in Florida since that date is well known throughout the country. County Health Departments have grown in number from 36 to 66. School health programs, stream and air pollution programs, radiation control, bedding inspection, the medical and dental scholarship programs, a coordinated state-wide mosquito control program and a host of other activities all have been instituted or expanded under his administration. Heart disease, cancer and diabetes control programs have been greatly strengthened. Hospitalization for the indigent was inaugurated, the Bureau of Mental Health established, virus laboratory work begun and regional laboratories established at West Palm Beach, Tallahassee and Orlando. Two new buildings at Jacksonville have more than doubled the available space there, and numerous new County Health Department buildings and clinics have been constructed.

Dr. Sowder's varied and interesting career exemplifies one of the reasons for the growing interest in health careers.

his profession. A dental assistant can start right after high school and receive training on the job. Biologists and chemists spend nine or more years in obtaining education and experience. Hospital receptionists and service workers can start with a high school education. Safety engineers, sanitarians and speech therapists get a four year college degree.

Particularly in the field of the para-medical sciences the job names and descriptions are rather complex. Actually the understanding of such terminology is not difficult if we remember that such words are put together according to a simple formula. "*Ology*" comes from the Greek word meaning *word*, and now is a suffix in English meaning *science* or *study of* it. Hemo means blood, so hematology means the science and study of blood. Viruses and germs, or bacteria, are studied and worked with by virologists and bacteriologists. Serologists work with serums, and the histologic technician mentioned a moment ago works with tissues.

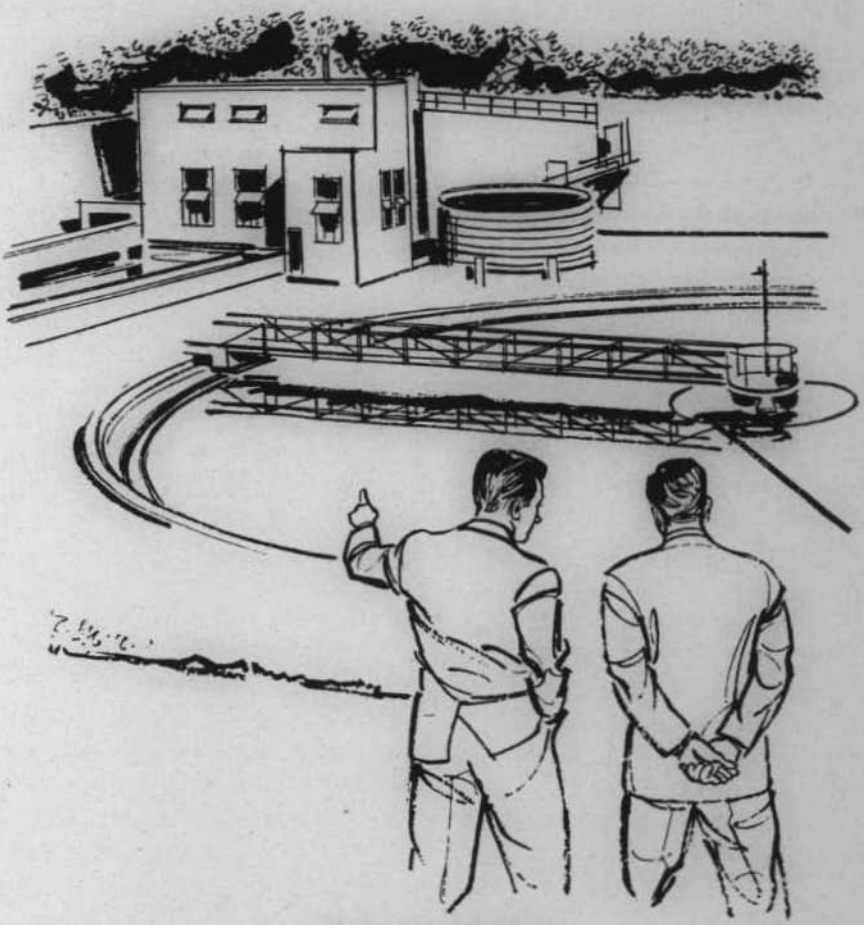
These and many other branches of the para-medical sciences are all different in some respects, but all are closely related. The student is not likely to know exactly which branch will interest him most until he has completed the earlier years of study and becomes intrigued with a particular subject. But the earlier training is the same for all of them and a decision need not be made in a hurry.

There is a place in the health team for the natural talents, too. Artists and people with a flair for photography are needed. Those who have a natural bent for organization, public speaking, writing, teaching, all find their niche. Of course, in all cases, a natural talent is not enough. The basic job must be learned, and the talent applied to it.

State Board of Health Scholarships

Scholarships and stipends—the latter term is used to designate a grant of money for graduate study—are provided by the State Board of Health for advancing the professional stature of some of their outstanding employees. Those selected are often from the supervisory and consultative ranks, and it is regarded as important that they be kept abreast

For information on how to get started in a health career, or how to obtain financial aid, see the last page in this issue of *Health Notes*. For advice on health careers talk to your school principal or superintendent, director of your County Health Department or write to the State Board of Health, Box 210, Jacksonville 1, Florida.



SANITARY ENGINEER

of the very latest developments in their field. Staff sanitarians, public health nurses and some others are usually either sent to school for short courses or given such courses while in service, to orient them in the application and use of their knowledge and training in the field in which they have been employed.

The health officer is a graduate, licensed doctor of medicine. He, and those holding the title of assistant health officer, are often sent to a school of public health to obtain the degree of Master of Public Health. This is usually done after a physician has worked for a few years with the State Board of Health or a County Health Department and demonstrated certain qualities

of leadership and ability in the field of preventive medicine. Where this is done, the doctor usually receives three-quarters of his regular salary and travel expenses, plus tuition and fees. Sometimes, also a young doctor is sent directly into residency training in a County Health Department after he has finished his hospital internship. In this case he is paid a salary and works as a staff physician in the various phases of the Health Department's program while he gains experience.

A similar program of scholarships exists also for nurses, sanitarians, laboratory specialists and other personnel. The State Board of Health is interested in the further training of people in all fields of public health and has means of assisting in this further training for practically any professional person in its employ. In every case outstanding persons are chosen, and seldom if ever, has the State Board of Health found the investment to be unprofitable. Rather, the scholarship program performs a great service both to the state and to the individual. The standards of all the professions continue to rise, thus assuring the more progressive County Health Departments a better qualified employee. It is well to remember that the whole program applies to County Health Department personnel as well as to State Board of Health employees.

Mental Health Scholarships

A specific program of scholarships has been set up by the state for professional people who wish to study in the field of mental health. Those selected are already graduates in the field of medicine, nursing or social work. They receive their post-graduate training in those facets of their own profession which will qualify them to serve the state in mental health work, and agree to become or remain employees of state mental health institutions or clinics for specific periods of time. Physicians become psychiatrists, nurses become psychiatric nurses and social workers become psychiatric social workers, while psychologists prepare themselves for advance work in their field. The program provides some twenty-seven scholarship stipends each year in these fields and is administered by the State Board of Health which makes the grants in aid to persons selected and recommended by the Florida Council on Research and Training in Mental Health, a board appointed by the Governor.

Summer work for students

Still a further aid for those who are getting an education in the health field is the program of work for summer students

begun recently by the State Board of Health and some County Health Departments. Students who are planning to become doctors, nurses and other health workers may apply for summer work. Some 28 were so employed during the summer of 1959. They worked in fields closely allied to their chosen specialty. They received three months of employment with varied salaries depending on the amount of university training completed. They were thus aided in two ways—financially and in experience gained. The health agencies profited from the assistance provided and some of these students will undoubtedly eventually enter public health work because of a summer's experience.

Diversified Cooperative Training

Known popularly as DCT this is the program with which a high school student might first come in contact in planning and starting training for a career. The Diversified Cooperative Training program takes high school juniors and seniors and starts them actually working—for pay—at the kind of job they choose.

Students selected for the program are carefully chosen. They must be in the upper part of their class as far as grades are concerned. They must then take a group of aptitude tests and show a certain amount of promise in the field they have chosen. Then they must work with their Coordinator—the teacher in their school who is in charge of the program—in preparing a course of study which would best prepare them for the career they have chosen.

When the Coordinator feels that the student is ready and all the details have been taken care of, the student is introduced to a prospective employer who agrees to hire the student for work during school day afternoons. If the student is satisfactory to the employer, he is employed and put to work doing simple things which are of value to the employer and expose the student to the environment of his chosen work. For instance a boy who wants to be a sanitary engineer may work as an errand boy with an architect or a civil engineering firm. A girl who wants to be a nurse may be placed for a while in a hospital or nursing school office. A boy who selects merchandising might be placed in the offices of a grocery store chain or a department store.

Literally thousands of the nation's leaders in every conceivable field started their careers under DCT. When they have finished their education it gives them a head start, an advantage

of additional experience in competition with the other full-time employees for top positions.

It should be understood that the DCT student is not merely half in school, half at work. The working hours in the afternoon are considered school hours and full credit is given for them. The money the student earns is his own and the experience he gains is invaluable as he progresses further in training for his career.

The DCT program is a large and vigorous segment of our educational life. For example, in 958, in Duval County alone, 342 students of both races were enrolled, working some 350,000 hours and earning more than $300,000 in wages.

Federal Grants in Aid

The Public Health Service of the U. S. Department of Health, Education and Welfare has established a program of traineeships for graduate or specialized public health training for professional health personnel such as physicians, nurses, sanitary engineers, nutritionists, medical social workers, dentists, health educators, sanitarians and others whose professional skills are required in public health work.

The primary objective of this program is to bring new people into the field of public health through providing post-graduate training opportunities for men and women who have completed their basic professional education.

The individual must be accepted for admission by a recognized public health training institution in the professional field before he can be offered a grant in aid.

The academic degree already held by the individual determines the financial worth of the traineeship, consideration being given to the number of dependents (which is seldom taken into consideration in many other scholarship programs).

Further information may be obtained by writing directly to:

Chief, Division of General Health Services
Bureau of State Services
Public Health Service
U. S. Department of Health, Education and Welfare
Washington 25, D. C.

Para-medical and Future Nurses Clubs

Many high schools have Future Nurses Clubs, and in some areas there are clubs for both boys and girls, called Para-Medical Clubs. These are organizations formed for the purpose of bringing together those who are interested in careers in the health field and giving them an opportunity to discuss their plans, visit hospitals and health departments and other health facilities and meet people who are prominent in

VETERINARIAN

health fields and learn from them what it means to be a nurse, sanitarian, doctor, a medical technologist—or one of a hundred other allied professions.

Last year there were 87 such clubs in Florida, reporting among their membership a total of 193 young people who had decided to enter the health field. There were 169 girls going into some phase of nursing, while eleven, presumably all boys, planned medical careers and thirteen were going into other work in the health field. This could be taken as an indication of the need for more para-medical workers and therefore as a clear indication of the width of the opportunity field here.

The clubs are open to all students who think they might be interested in health work.

They may join without committing themselves in any way as to choice of career. The clubs are sponsored by the Womens' Auxiliary to the Florida Medical Association and their members and leaders are anxious to meet and greet any student who has a mutual interest with them in the possibilities of the health career field.

If you want to know more about some of these professions, we have discussed, you might write to:

PHYSICIANS
American Medical Association
535 North Dearborn Street
Chicago 10, Illinois

NURSES
National League for Nursing
Committee on Careers
2 Park Avenue
New York 16, New York

SANITARIANS
Division of Sanitation
Florida State Board of Health
P. O. Box 210
Jacksonville 1, Florida

DENTISTS
Bureau of Dental Health
Florida State Board of Health
P. O. Box 210
Jacksonville 1, Florida

MEDICAL TECHNOLOGISTS
Miss Carolyn Roth
Executive Secretary
Florida Society of Medical Technologists
P. O. Box 210
Jacksonville 1, Florida

Scholarships and Financial Aid

The student interested in a scholarship or student loan should discuss the matter with his high school principal or the dean of the college or university in which he is interested. Some specific information concerning aid to students in special categories could be obtained from:

Medical or Dental Scholarships for Students who have Completed Their Pre-Professional College Work
Florida State Board of Health, P. O. Box 210, Jacksonville 1, Florida

Nursing Scholarships, State of Florida
Coordinator of Scholarship Services, State Department of Education, Tallahassee

Mental Health Scholarships for Graduate Students
Florida Council for Research and Training in Mental Health, State Board of Health, P. O. Box 210, Jacksonville 1, Florida

Dependent Children of War Veterans
(Either parent must have died of injury or disease connected with service in the armed forces during World Wars I or II, or the Korean War.)
Department Adjutant, American Legion, P. O. Box 726, Tallahassee, or Executive Secretary, Board of Control, Tallahassee.

Illustrations reproduced with permission from the Health Careers Guidebook, published by the National Health Council with the public interest support of The Equitable Life Assurance Society.

FLORIDA STATE BOARD OF HEALTH

1217 Pearl Street or P. O. Box 210
JACKSONVILLE, FLORIDA

All Counties in Florida have organized county health departments, except St. Johns County

FLORIDA HEALTH NOTES published by Florida State Board of Health since 1892